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MONTHLY REPORT

OF THE

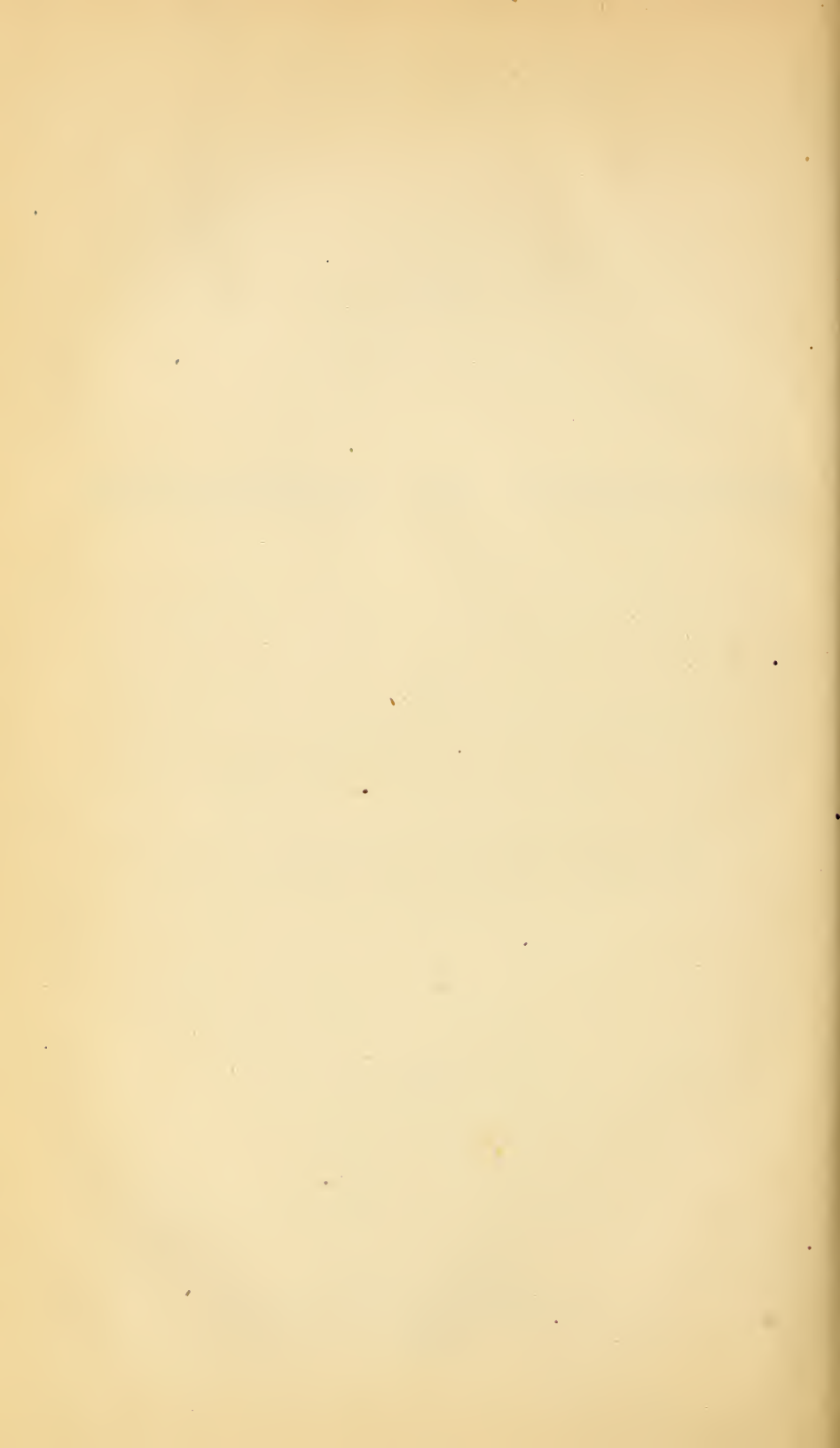
DEPARTMENT OF AGRICULTURE

FOR

AUGUST AND SEPTEMBER, 1876.



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MONTHLY REPORT.

DEPARTMENT OF AGRICULTURE,
STATISTICAL DIVISION,
Washington, D. C., September 25, 1876.

SIR: I respectfully present for publication a digest of the crop-returns of August and September, and other current statistics, domestic and foreign, relating to production and distribution, markets and prices.

Respectfully,

J. R. DODGE,
Statistician.

Hon. FREDERICK WATTS,
Commissioner.

DIGEST OF THE CROP-RETURNS. I

CORN.

Our August returns indicated that the crop of the country was full average, the deficiency in the great corn-producing States of the Northwest being compensated by the superior condition of the other sections. During August, however, great local changes took place, but the improvement in some sections was more than counterbalanced by the decline in others, resulting in a net loss in condition of 2 per cent., and reducing the general condition of the crop to about 98. All the New England and Middle States fell off except Rhode Island and New Jersey. In these States drought in July greatly reduced the crop, but the refreshing rains of August partly repaired the damage. In the other States of these sections the conditions were reversed. The fine growth attained in July was considerably cut down by the drought of August. Insect-injuries and premature frosts also affected the crop in some of the more northern counties. All of the South Atlantic States show an advance, and a condition, on the whole, considerably above average. During July the condition of the crop in this section was depressed in some counties by drought and in others by abnormally-low temperature and cool nights, while in a few cases grub-worms and grasshoppers injured the growing plants. In August, however, improved conditions of growth were very general, though some local disasters are reported. Chinchies and grasshoppers were troublesome in some counties, and occasional freshets injured bottom-crops in others, but the improvement on the whole was marked and satisfactory.

On the other hand, the Gulf States all declined, except Louisiana, which shows a very considerable advance upon the low condition of August. Alabama and Texas are still above average, but do not attain the high figures previously reported. Florida and Mississippi show a slight decline. Drought in some counties and excessive rain in others reduced the condition of the crop, but there are numerous congratulations from our correspondents in the Gulf States on having raised the best crop since the war. A larger number of counties than ever before report a production fully equal to the home demand, with a marked reduction of local prices. An increased acreage gives greater effect to improved conditions, and the people are encouraged with the hope that this region will soon raise all the corn needed for home consumption. A few unimportant insect-depredations are noted.

All of the Southern inland States are above average, and all have improved during August. Local droughts or flooding rains are reported and, in a few counties, injuries from bud-worms, wire-worms, and chinchcs. One or two of our correspondents justly criticise the slovenly systems of culture followed by many of their neighbors. The general indications point to an abundant yield and low prices. In Washington, Arkansas, corn was selling at $7\frac{1}{2}$ and 8 cents per bushel on the stalk.

North of the Ohio River all the States report an improved condition at end of August except Michigan. Ohio and Wisconsin are above average, while the great corn-regions of Indiana and Illinois show a gratifying improvement, greatly reducing the decline apprehended at the close of July. During that month drought and excessive rains had prevailed over alternate zones of the corn-region, the former partially paralyzing vegetation and the latter preventing cultivation and causing the fields to be overrun with weeds. Where drought prevailed, bottom-crops were the best, but with excessive rains, rolling uplands had the advantage. Insect depredations were on a smaller scale than usual; those old enemies of the farmer, the chinchcs, appeared in a few counties, but too late to do serious injury to the corn-crop. East of Lake Michigan heavy rains were the common topic of complaint, and it was noticed in several counties that sandy rolling lands produced the best crops. Frost also injured some lowland crops, and in one or two cases extreme heat and drought are alleged as causes of decline. West of Lake Michigan the feeling of our correspondents is more jubilant over a fine promise of the crop, the average condition of Wisconsin being 11 per cent. above average, an improvement of 10 per cent. during August.

Between the Mississippi and Missouri Rivers, Minnesota maintains her August average in spite of the ravages of grasshoppers in her western counties, while Iowa and Missouri report an improved condition. West of the Missouri, Kansas advanced to 6 per cent. above average. The grasshoppers came too late to do much injury in this State, but in Nebraska they reduced the very superior condition at the close of July to one below average at the close of August.

On the Pacific coast the condition of the crop improved at least 5 per cent. during August. Frost and low temperatures injured the plants in some counties.

MAINE.—*Piscataquis*: Severe drought, but corn is too far advanced to be injured by it. *York*: Ripening prematurely on account of the drought. *Franklin*: Late plantings injured by drought. *Waldo*: Never better. *Cumberland*: Injured by drought.

NEW HAMPSHIRE.—*Cheshire*: Too dry for corn. *Carroll*: Upland crops injured by drought.

VERMONT.—*Franklin*: Injured on sandy soils by drought; prematurely ripened. *Grand Isle*: Injured by drought. *Rutland*: Suffered from drought. *Windsor*: Drought. *Orleans*: Well-ripened and fine.

MASSACHUSETTS.—*Hampshire*: A great deal of smut in corn. *Hampden*: Shortened by drought. *Plymouth*: Looks well, but not quite average.

CONNECTICUT.—*New London*: Good, but injured by drought on dry soils.

NEW YORK.—*Warren*: Drought. *Greene*: Prematurely ripened by drought. *Washington*: Injured by drought. *Schoharie*: Shortened by drought. *Montgomery*: Ruined by drought. *Saratoga*: Very irregular; some fields with fair crops, while fields alongside are without an ear. *Chautauqua*: Severe August drought; crop seriously injured. *Genesee*: Later plantings shortened by drought. *Onondaga*: Destructive drought, especially on sandy soils. *Steuben*: Drought. *Wyoming*: Matured early; shortened by drought. *Orange*: Much injured by drought. *Niagara*: Destructive drought and heat. *Madison*: Half crop; severe drought. *Livingston*: Fine crops in some localities and very poor in others. *Franklin*: Excessive drought. *Dutchess*: Much injured by drought. *Yates*: Well grown and well eared, but much of it is smutted. *Sullivan*: Shortened by severe drought. *Broome*: Affected by drought. *Erie*: Well ripened.

NEW JERSEY.—*Sussex*: Shortened by drought. *Salem*: Best prospect for twenty years. *Mercer*: Suffered severely by drought. *Burlington*: Drought severe. *Cumberland*: Good in some sections favored with seasonable rains. *Warren*: Improved, but many fields smutted.

PENNSYLVANIA.—*Chester*: Very fine. *Lancaster*: Very large crop. *Elk*: Crop good and safe. *Bedford*: Maturing well; weather dry and warm with occasional rain. *Beaver*: Early ripening. *Tioga*: Shortened by drought. *Armstrong*: Suffered severely from drought; ripened prematurely. *York*: Promising. *Monroe*: Suffered from drought. *McKean*: Suffered from worms and drought. *Cameron*: Greatly injured by drought. *Butler*: Much soft corn from late planting. *Clearfield*: Light. *Westmoreland*: Large crop in spite of grasshoppers, provided frost holds off. *Northampton*: No rain for six weeks; very short. *Warren*: Greatly injured by drought, and some late plantings by frost on lowlands, August 20. *Washington*: Drought caught corn in the milk and shortened it. *Sullivan*: Brought on rapidly by warm weather in August. *Lehigh*: Suffering from drought. *Berks*: Shortened by drought. *Lycoming*: Shortened by drought in July and August. *Wyoming*: Dried up.

DELAWARE.—*Sussex*: Extreme drought parching fodder.

MARYLAND.—*Prince George*: Above average. *Howard*: Dry weather at earing, but good crop. *Calvert*: Crop unequal; some fields excellent, having had abundant rain; others shortened by drought. *Baltimore*: Heavy yield; well worked. *Queen Anne*: Ground well prepared, but a protracted drought in July greatly reduced the yield; matured two or three weeks earlier than usual. *Wicomico*: Greatly improved by August rains; prospect better than for ten years. *Carroll*: Never better. *Frederick*: Best prospect for years.

VIRGINIA.—*Pulaski*: Best for several years, though injured by drought on some uplands. *Smyth*: Prospect somewhat less flattering but large yield promised. *Orange*: Greatly shortened by drought, lasting to July 28, but greatly improved by subsequent rains. *Elizabeth City*: Holds its own in spite of the heat and drought of August. *Carroll*: Never better. *Buchanan*: Excellent. *Russell*: Fair to good condition. *Prince William*: Improved by the favorable season. *Mecklenburgh*: Improved by late rains. *Fluvanna*: Early plantings injured by drought. *Rockingham*: Fine crop, but injured by drought in lower parts of the county. *Madison*: Good in upper portions of county; rains partial. *King George*: Best crop for many years. *James City*: Warm copious rains of July and August have more than compensated the drought of June. *Dinwiddie*: Well cultivated and full average. *Middlesex*: Shortened by drought in June 20 per cent. *Campbell*: Improved by late rains; looks well where well cultivated. *Bland*: Injured in some localities by drought at sowing-time. *Sussex*: Very fine prospect. *Loudoun*: Crop made and remarkably fine. *Wythe*: Best crop for years. *Northampton*: Best crop for many years. *Princess Anne*: Crop saved by August rains; all except late plantings matured. *Highland*: Saved by the August rains. *Westmoreland*: A good crop.

NORTH CAROLINA.—*Wilson*: Improved during August; late plantings doing well. *Onslow*: Fair. *Union*: Best since the war. *Transylvania*: Greatly improved, especially late plantings. *Stokes*: Late rains partly compensated the previous drought. *Orange*: Greatly improved by the copious rains of August. *Greene*: Shortened 10 per cent. by drought in July and August. *Chowan*: Yield light. *Alamance*: Greatly improved in August, though early plantings were greatly injured by drought. *Iredell*: Greatly improved by August rains. *Nash*: Doing well in spite of local drought. *Davidson*: Bottom-crops destroyed by spring floods. *Warren*: Brought up to average by fine rains; chinchies abundant in some localities; strong lye of wood-ashes applied to the stalk effectually destroyed them; care should be taken not to apply the lye to the bud of the corn, as it will kill it. *Mecklenburgh*: Good on uplands; too much rain on bottoms. *Wilkes*: Late fine weather has brought the crop to an average condition. *Perquimans*: Generally good. *Gaston*: Not fully recovered from July freshet. *Edgecombe*: Doing well, especially late corn; fine rains lately. *Buncombe*: Short—bad stand in spring and drought afterward. *Carteret*: Fair prospects. *Polk*: Damaged by spring

freshets; if that replanted matures, there will be two-thirds of a crop. *Caldwell*: Injured by June freshets. *Hertford*: Greatly injured by extensive rains in July and August. *Madison*: Improved beyond expectation by the rains of August.

SOUTH CAROLINA.—*Newberry*: Over average and well matured. *Clarendon*: Several heavy showers came just in time to make the crop. *Spartanburgh*: Variable; low lands submerged and their crops short and late. *Chesterfield*: Late plantings need rain badly. *Lexington*: Crop average; late plantings suffering from drought. *Union*: Upland crops above average, while on bottoms they are below average; freshets.

GEORGIA.—*Twiggs*: Good. *Jefferson*: Unusually good. *Dade*: Abundant home-supply and some old corn left over. *Upson*: As good as the land will bring. *Whitfield*: Injured by drought. *Lumpkin*: Late rains have about made the crop. *Jackson*: Splendid crop made. *Floyd*: Injured by drought and grasshoppers, especially late plantings. *Clayton*: Best crop since the war, though some bottom-lands do not bring half a crop. *Baldwin*: Crop made, and a very fine one. *Walton*: The favorable report of July repeated; seasonable weather throughout August. *Richmond*: Crop first-rate on the whole. *Oglethorpe*: Late corn the best for ten years; much planted late on account of overflows in the spring. *McDuffie*: Best crop in ten years. *Fulton*: Early plantings very fine; late, injured 25 per cent. by drought. *Dooley*: Finest crop in ten years. *Marion*: Best crop in ten years. *Baker*: Crop made; ample for home consumption; over half the plantings will make a good crop. *Thomas*: Best crop ever made here. *Fannin*: Crop made, and excellent. *Troup*: Ears large but light. *Towns*: Too much rain in the early part of the season. *Pulaski*: Badly injured by drought in at least a third of the county. *Elbert*: Fine season. *Barton*: Injured by drought and grasshoppers. *Lincoln*: Good on uplands, but injured by freshets on bottoms. *Taylor*: Crop made; the best ever raised here; a surplus to spare. *Wilcox*: Very fine. *Polk*: Best crop since the war.

FLORIDA.—*Suwanee*: Did not fill well. *Jackson*: Increased aggregate yield. *Hillsborough*: Housed in good order. *Columbia*: Injured by drought. *Gadsden*: Fodder saved in good condition.

ALABAMA.—*Etowah*: Ample for home consumption. *Limestone*: Rain at planting caused a bad stand in corn. *De Kalb*: Late planting damaged by drought, but the crop will be ample for home consumption; generally fine on upland soils. *Crenshaw*: Above average. *Clarke*: Good. *Calhoun*: Fully matured, and about as good as the land can bring without fertilizers. *Conceh*: Good crop. *Franklin*: Two months' rain benefited the crop. *Coffee*: Best crop since the war. *Clay*: Has done well; too little of it grown to meet the home demand. *Russell*: Abundant for home consumption. *Monroe*: Rotted unusually from excessive rains. *Bullock*: Fine crop. *Saint Clair*: Abundant; old corn sells at 50 cents per bushel. *Greene*: Very short. *Chambers*: Fine growing season. *Blount*: Better than last year, but much of it is late and not yet matured. *Lauderdale*: Damaged by excessive rains. *Colbert*: Crop large.

MISSISSIPPI.—*Rankin*: Well matured; good in some parts, but a failure in others. *Lee*: Injured by excessive rains; blown down and rotting in some places. *Kemper*: Not near so good as last year; probably enough for home consumption. *Tishomingo*: Crop abundant; more than sufficient for home demand. *Perry*: Early planting stunted by spring droughts, yet the general yield will be 25 per cent. above average. *De Soto*: A beautiful crop made. *Choctaw*: Injured by excessive rains, especially late plantings on bottom-lands. *Covington*: Injured by drought; rains too late to repair the damage. *Winston*: The late rains have been excellent for the crop, except on low bottoms. *Jasper*: Injured by drought; plenty of old corn for 50 cents per bushel; a fact unprecedented at this time of year. *Yalabusha*: Injured by excessive rains. *Wayne*: Good crop, and safe. *Grenada*: Injured by storms and wet weather. *Greene*: Good. *Amite*: Acreage increased. *Lauderdale*: Above average, and equal to the best crop for the last ten years. *Jefferson*: Poor; late plantings best.

LOUISIANA.—*Franklin*: Rains too late; crops three-fourths average, scant. *Morehouse*: Two-thirds of a crop; drought. *Washington*: Lack of rain in places shortened the crop. *Iberia*: Unusually fine. Previous to last year the home product commanded \$1 to \$2 per barrel; it then fell to 50 and 60 cents; the new crop is now offered for 40 cents. *Richland*: Early corn on high lands suffered from drought; on bottoms from overflow in the spring, and, after replanting, from insects. *East Feliciana*: Shortened by drought in June and July; subsequently by the army worm. *East Baton Rouge*: Recent rains beneficial, especially to late plantings. *Jackson*: Best crop in ten years, but much fodder lost by late rains.

TEXAS.—*Smith*: Unusually heavy and well filled out. *Marion*: Crop excellent. *Dallas*: Best crop in ten years. *Cooke*: Very fine. *Burnet*: Late corn badly worm-eaten. *Williamson*: Largest crop ever raised. *Waller*: A vast difference; early plantings heavy and full; late plantings the reverse. *Collin*: Very heavy. *Washington*: Selling at 30 and 40 cents per bushel. *Red River*: Fully made, fine and abundant. *Kaufman*: Excellent; offered at 25 cents per bushel in the field. *Austin*: Damaged to some extent by spring drought. *Upshur*: Sound and well matured. *Panola*: Well matured; finest crop we ever raised. *Kendall*: Yield double that of any year of the last

ten. *Titus*: Crop safe, large, and of good quality. *Harrison*: Best crop in ten years. *Grayson*: Never better; surplus over home consumption. *Coryell*: Above average. *Bandera*: Fine crop fully made. *Bee*: Largest crop ever made here. *Hunt*: Largest crop ever made in the county; Pennsylvania yellow corn ahead of all others.

ARKANSAS.—*Clay*: Late corn injured by the prevailing drought. *Saint Francis*: Best crop for several years. *Prairie*: Best crop for years; will not bring over 25 cents per bushel. *Jefferson*: Heaviest crop since the war. *Franklin*: Unusually good; season favorable for tillage. *Washington*: Selling at 7½ and 8 cents in the field; large stock of old corn on hand; new crop above average. *Sevier*: Never better; ample for home demand. *Monroe*: Crop made; abundant. *Arkansas*: Looks fine; plenty of rain in August. *Lonoke*: Largest crop ever made in the county. *Pulaski*: Never better; much old corn on hand. *Benton*: Late plantings ruined by drought. *Bradley*: Enough made for home use. *Fulton*: Increased acreage; excellent yield.

TENNESSEE.—*Wilson*: Unusually fine. *Rhea*: Filling well. *McMinn*: Good, in spite of drought in July and August. *Hardeman*: Above average; about equal to last year. *Greene*: Heavy crop. *Gibson*: Prospect of a better crop than usual. *Blount*: Injured by drought in some localities, but a fair average on the whole. *Union*: Cut short by drought. *Trousdale*: Very fine. *Davidson*: Reduced to average by severe windstorms. *Cannon*: Too much rain. *Tipton*: Very good where properly cultivated. *Smith*: Weather very favorable; crop matured. *Fentress*: Unusually fine. *Monroe*: Cut short. *Maury*: Very fine. *Perry*: Largest yield ever realized is confidently expected. *Shelby*: Splendid harvesting season. *Sequatchie*: Average, but not so good as last year. *Grundy*: Below last year in condition. *Putnam*: Never better.

WEST VIRGINIA.—*Preston*: Average greater than for fifteen years. *Raleigh*: Very fine. *Brazton*: Best crop for several years. *Hardy*: At least 10 per cent. above average. *Mercer*: Recent rains have improved the crop. *Monroe*: Heavy, except on poor, slaty land. *Wetzel*: Greatly benefited by recent fine weather. *Jefferson*: Ripening finely.

KENTUCKY.—*Cumberland*: Best crop for many years. *Shelby*: Heaviest yield in ten years. *Nicholas*: About average. *Daviess*: Crop bids fair to yield 1,200,000 bushels. *Madison*: Largest crop ever raised here. *Calloway*: Very fine. *Carroll*: Unusually fine season for corn. *Henry*: Unusually heavy crop in some sections, but poor in others. *Lincoln*: Promises a heavy crop of fine quality. *Logan*: Fine season. *Mason*: Not so heavy as last year, but good; matured early. *Spencer*: Crop luxuriant but kept green by rains, and in danger of early frosts. *Owsley*: Cut down 50 per cent. by drought. *Metcalfe*: Best crop ever raised here.

OHIO.—*Ashtabula*: Full average, in spite of local injuries. *Clark*: Full crops. *Washington*: Planting retarded by the wet weather in spring; the crop will require a late fall. *Williams*: Injured by wet weather succeeded by drought. *Preble*: August not favorable to the crop. *Franklin*: Remarkably favorable season. *Wayne*: Fine crop; ripening well. *Hamilton*: Uplands below average; bottoms above. *Perry*: Excellent, except a few pieces injured by drought; less damage from floods than for many years. *Athens*: Short in some localities; saved poorly; drought. *Delaware*: Increased average and good yield. *Geauga*: Best crop for years. *Harrison*: Promises to be one of the best crops ever raised in the county. *Sandusky*: Injured by wet weather. *Henry*: A fourth of a crop; continued rains prevented cultivation; overrun with weeds; this failure for the third year has awakened attention to the necessity of underdraining. *Huron*: Looks well, but is late. *Lucas*: Greatest crop of weeds ever raised; corn, where it could be cultivated, is doing well; underdraining suggesting itself. *Muskingum*: Early plantings above average; late plantings shortened by drought. *Noble*: Too wet. *Portage*: Rains and hot weather have made large crops which promise an early maturity. *Wood*: Excessive rains have caused the lowland and prairie crops almost entirely to fail; over 20,000 acres will not yield a bushel of good corn to the acre. *Lorain*: Very early.

MICHIGAN.—*Kalamazoo*: Corn-fodder parched with drought. *Lapeer*: Looks remarkably well. *Tuscola*: Injured seriously by early frost; upland crops escaped. *Ottawa*: Not well filled. *Wayne*: Never better. *Calhoun*: Injured by heavy rains. *Mecosta*: On sandy land never better; on heavy land it suffered from excessive rains in the fore part of the season. *Muskegon*: Excellent on lands dry enough to be cultivated in June, but a great breadth was drowned out or overgrown with weeds. *Oakland*: Shortened by heat and drought in August. *Mason*: Promising.

INDIANA.—*Clarke*: Fine crop. *Decatur*: Injured by excessive rain preventing cultivation. *De Kalb*: Very poor on wet flat land, but good on sandy soil. *Franklin*: Doing well; weather very favorable. *Laurence*: Fine weather for corn; full crop, in spite of wire-worms. *Pike*: Largest crop yet raised in the county. *Ripley*: Fine crop; if frost delays till September 20, the yield will be above average. *Shelby*: Greatly improved by recent rains. *Warren*: Improved 20 per cent. during August. *Washington*: Injured in some localities by drought in the earlier part of the season, but is good on bottoms, though somewhat damaged by recent storms. *Wabash*: Full crop on bottoms, but damaged on uplands. *Brown*: Good; ripening finely. *Stark*: Shortened by wet

weather in the early part of the season, but greatly improved of late. *Jasper*: Badly drowned out or overrun with water-grass, which is cured for hay; out of danger from frost. *Marion*: Very good where well tended; ripening retarded by excessive rains, which have interfered with cultivation on all ground not naturally dry or well under-drained. *Marshall*: Crop lighter than last year's; out of the way of frost.

ILLINOIS.—*Bureau*: Too wet for corn up to August 10; since then too dry; crop damaged considerably. *Hardin*: A splendid crop blown down by storms. *Ford*: A third of a crop if frost holds off. *Carroll*: Area, 75,000 acres, or 2,000 more than last year; August all that could be desired for ripening; early plantings already ripe. *Clinton*: Uplands very fine; lowlands inferior. *De Kalb*: Fine weather for ripening; approximate average. *Effingham*: Damaged by wet in June and July; not over half a crop; kernel good. *Fayette*: Full average. *Franklin*: Injured by drought for several weeks. *Jefferson*: Fine, especially on high lands. *Madison*: Heavy on dry lands; poor on low undrained fields. *Marshall*: Excellent on rolling and well-drained land, but poorly cultivated on account of excessive rain in June and July. *Mercer*: Crops excellent in quality and abundant on well-drained land. *Scott*: Injured by a drought of five weeks. *Shelby*: Some crops totally failed on account of excessive rain. *Winnebago*: Safe from frost, and good. *Woodford*: Thousands of acres will not average a peck per acre; ruined by extremely wet season. *Clark*: Excessive rain in June and July drowned out many crops and caused an immense growth of weeds. *Hamilton*: Suffered from wet on level land, but lately by drought; yet it is a better crop than last year. *Lee*: Doing finely; will be full average if the season continues favorable. *Ogle*: Some good, and some small and weedy. *Stephenson*: In most places very good. *Johnson*: Ordinary cultivation; condition excellent—better than for many years. *Macon*: Damaged by rain in June. *Mason*: Good on highlands, but poor on lowlands from excessive rain. *Pope*: Too wet season for cultivation. *White*: Crop forward and ripening finely, but will yield only 40 per cent. of a full crop. *Morgan*: Still in danger of frost.

WISCONSIN.—*Dunn*: High temperature and frequent showers of August brought out the crop finely; large ears and plenty of them; two weeks of good weather will save the crop; one slight frost which did no harm. *Washington*: Chinchies took the crop when the corn was too far advanced to do much injury, but they damaged the fodder greatly. *Clark*: Crop fast maturing under the favorable weather; promises a full average. *Columbia*: Ripening nicely. *Crawford*: Ripening fast, and will be nearly a full crop if frost holds off. *Fond du Lac*: Never better. *Richland*: Doing well. *Walworth*: Improved beyond expectation, and will be a good crop. *Outagamie*: Out of danger from frost.

MINNESOTA.—*Yellow Medicine*: Nearly ruined by drought and grasshoppers. *Redwood*: Almost destroyed by grasshoppers. *Faribault*: Large acreage; well advanced; about average in spite of a destruction of 10 per cent. by grasshoppers. *Meeker*: Full crop if not ruined by grasshoppers. *Nicollet*: Injured by grasshoppers. *Blue Earth*: Injured somewhat by grasshoppers. *Nobles*: A small amount of corn escaped the grasshoppers.

IOWA.—*Benton*: Never better. *Poweshiek*: Backward. *Wayne*: Average; fifteen days late. *Crawford*: Shortened 30 per cent. by grasshoppers. *Hancock*: Never better; safe from frost. *Hardin*: Doing well. *Harrison*: Crop extra, but grasshoppers reduced it to an average. *Henry*: Fine weather bringing up the discouraging condition of corn. *Howard*: Promising, and out of danger from frost. *Humboldt*: Injured somewhat by grasshoppers. *Jefferson*: Brought out some by favorable weather in July and August; where nothing was expected from ten to fifteen bushels were raised. *Johnson*: Greatly improved in August by favorable weather; the late plantings will be average if frost keeps off. *Washington*: Nothing on wet, flat lands; average on dry lands. *Calhoun*: Looks well, except some "trimmed" by grasshoppers. *Cherokee*: Would have been very heavy but for grasshoppers, which cut it down 25 per cent., especially late plantings. *Greene*: Injured by grasshoppers. *Audubon*: Injured by grasshoppers. *Sac*: Cut down 25 per cent. by grasshoppers.

MISSOURI.—*Chariton*: Ravaged by field-mice when first planted, and subsequently injured by excessive rain and drought; a third of a crop. *Clay*: Shortened by excessive rain in spring and by drought in summer. *Buchanan*: Very promising. *Cass*: Weedy from excess of rain in spring; yet a good average. *Greene*: Largest crop ever raised here. *Johnson*: Suffering from drought; blades yellow and ears small. *Harrison*: Maturing finely. *Nodaway*: Promising, but late. *Saint Charles*: Late plantings promise finely. *Crawford*: Nearly ruined. *Mississippi*: Greatly improved within the last month. *Perry*: Good; season favorable for maturing. *Ralls*: Injured by wet weather preventing cultivation. *Cape Girardeau*: Good. *Pettis*: Fair crop in spite of heavy rains. *Camden*: Severely injured by rains and floods; old white selling at 50 cents per bushel. *Caldwell*: Much corn planted late. *Carroll*: Worst corn season for years, but the county is full of old corn. *Cole*: Very excellent. *Dent*: Injured by drought in the greater part of the county. *Holt*: Rapidly maturing, with a prospect of little or no soft corn. *Mason*: Under average. *Newton*: Continued drought has reduced a bountiful crop to

20 per cent. below average. *Phelps*: Benefited by recent rains, but the quality of this crop is inferior to that of the last year. *Dallas*: Shortened by drought. *Saint Francis*: Late rains greatly benefited late plantings; late corn will be the best if frosts hold off.

KANSAS.—*Douglas*: In fine condition; ears large and plump. *Marshall*: Crop nearly out of the way if the grasshoppers do come. *Republic*: Destroyed by grasshoppers. *Mitchell*: Early plantings nearly out of the way of grasshoppers, which are here by the million; late plantings will suffer; stalks loaded with them. *Franklin*: Benefited by recent rains; will equal the enormous crop of last year; on uplands and bluffs it is better than last year; lowlands weedy; one farmer has agreed to deliver 1,000 bushels at 20 cents per bushel. *Jackson*: Crop No. 1; somewhat injured by storms. *Marion*: Best crop ever raised here. *Nemaha*: Better than even the superlative crop of last year. *Pawnee*: Looks well in spite of the May and June drought; too far advanced to be injured by grasshoppers, except a few pieces of late-planted sod-corn. *Smith*: Injured by hail and drought about the 1st of August. *Washington*: Grasshoppers present and destroying leaves of corn, but not injuring the kernel. *Doniphan*: Very good. *Ellis*: Injured by drought in June; late corn riddled by grasshoppers. *Reno*: Grasshoppers will take late plantings; two-thirds of the crop too far advanced for them. *Norton*: Ruined by grasshoppers. *Allen*: Good. *Barton*: Late corn injured by grasshoppers. *Chase*: Still good; too far advanced for grasshoppers should they come. *Graham*: Destroyed by grasshoppers. *Miami*: Brought out wonderfully by August rains; unusually heavy crop on the largest acreage ever planted. *Rice*: Mostly out of the way of grasshoppers, but they are taking pieces of late-planted sod-corn. *Woodson*: Another vast surplus crop. *Montgomery*: Good crop.

NEBRASKA.—*Gage*: Grasshoppers present, but have not yet injured the corn more than 15 per cent. *Knorr*: Entirely destroyed by grasshoppers. *Otoe*: Yielding grandly. *Cuming*: Late plantings injured by grasshoppers. *Dodge*: Half the crops destroyed by grasshoppers. *Webster*: Slightly injured by grasshoppers, but full average. *Franklin*: Half taken by grasshoppers. *Adams*: Half the crop taken by grasshoppers. *Hall*: Clean sweep by grasshoppers. *Merrick*: Late crops suffered from grasshoppers. *Saunders*: Greatly damaged by grasshoppers. *Seward*: Grasshoppers swept the crop. *Thayer*: Injured by grasshoppers. *Boone*: All late plantings destroyed by grasshoppers. *Lancaster*: Grasshoppers. *Platte*: Injured early crops and destroyed late ones. *Wayne*: Late corn injured by grasshoppers; three-fourths of a crop will still be gathered. *Antelope*: Swept by grasshoppers. *Pawnee*: Never better. *Furnas*: Destroyed by grasshoppers.

CALIFORNIA.—*Siskiyou*: Damaged by frost August 29.

OREGON.—*Clackamas*: Summer too cool for corn. *Tillamook*: Minnesota corn from the Department the best for early plantings.

COLORADO.—*Fremont*: Three-fourths destroyed by grasshoppers. *Weld*: Nearly destroyed by grasshoppers.

WHEAT.

In the July report an improvement was noted in the condition of winter-wheat, bringing it up to 95. The August returns indicate that spring-wheat yielded less than three-fourths of a crop; it was still further reduced during that month by insect-ravages and unfavorable conditions of growth and ripening, so that the condition of the whole crop averages but 81. The actual yield will be the subject of further investigation.

In New England only the small crops of Massachusetts and Connecticut were in full condition. Complaints of injury from extreme heat and from the midge have been received from some of the northern portions of this region. The grain did not fill well, and hence was short in both weight and bulk.

In the Middle States the large crops of New York and Pennsylvania were below 100, the former 12 per cent. and the latter 4 per cent. In some cases the crop ripened too fast, and consequently the grain was imperfectly filled. Minorea wheat has had a satisfactory trial in Schuyler, New York, while the Clawson and Fultz are favorites in several counties in Pennsylvania. New Jersey and Delaware indicate high condition, but their surplus is not sufficient to meet the deficiency of the two larger States.

Maryland and Virginia are each 2 per cent. above 100, but the other South Atlantic States show a deficiency which decreases with the latitude to a minimum of 66 in Georgia. In Maryland conflicting reports in regard to the popularity of the Fultz wheat have been received. In Harford millers object to it as a flouring-wheat, and farmers indicate a purpose to sow less of it hereafter; in Calvert, Carroll, and Baltimore a different feeling is expressed, and this variety will be more extensively sown in the future. The Hessian fly was troublesome in Carroll. The Virginia correspondents on the whole are encouraged by the results of their wheat harvest; some farmers in Geeenville realized 20 bushels of grain for each bushel of seed sown. The Fultz is well spoken of in several counties. In Loudoun millers were offering \$1 per bushel, which the farmers found to be far more satisfactory than shipping to outside markets, in which case the various commissions generally reduce the farmer's share to 60 or 70 cents per bushel. In North Carolina insects, rust, and smut reduced the yield and impaired the quality of the grain. In Davidson County the heads turned grayish white and became shriveled. In some localities, however, the crop was satisfactory, and here it has to a considerable extent superseded cotton. The same influences were felt in different counties in South Carolina and Georgia. In Towns County, Georgia, Fultz wheat does very well, especially on low lands; in Gilmer the Jennings wheat was very satisfactory, but in Terrell the Jennings and Clawson are too late in ripening for the local climate.

The crop was very poor in all the Gulf States, Alabama showing less than two-thirds of an average condition. The Tappahannock is a favorite in some sections, the Fultz not having its usual success. Mississippi and Texas harvested over three-fourths of a crop. Fultz was not successful in those counties that have noted its experimental growth. In Victoria, Texas, seed imported from California yielded 40 bushels per acre.

All of the southern inland States were below 100 except West Virginia, 105. In Independence, Arkansas, the Tappahannock failed entirely through rust, while the Walker wheat was quite satisfactory. In Tennessee scab and smut reduced the crop in some localities. The Fultz and Jennings seed from the Department yielded well. In Braxton, West Virginia, the Fultz was less affected by chinchies than other varieties. Good reports of the Fultz, Clawson, and Jennings come from several counties in Kentucky.

All of the States north of the Ohio River indicate low condition, ranging from 89 in Ohio to 58 in Wisconsin. Winter-wheat was here considerably reduced by winter-killing. The midge and Hessian fly were destructive, while in a few cases the chinch had put in an appearance before the grain was harvested. These enemies were still more destructive to the spring-wheat which was longer subjected to their ravages. A great falling-off in spring-wheat is especially noticeable in Illinois, which, according to our August returns, did not gather over a third of a crop. In Coshocton, Ohio, the Fultz wheat, from seed sent out by the Department three years ago, is pronounced by both farmers and millers the best ever raised in the county. Several other counties in this region express the same preference. Orange, Indiana, reports an average yield of 32 bushels per acre, while others ranged from 5 to 20 bushels. Of spring wheats the Arnautka succeeded well at several points in Michigan, while its failure in different counties of Illinois may be referred to the extraordinary influences which have injured the

spring-wheat crop generally. Clawson and Mediterranean are also popular in many counties.

West of the Mississippi the crop is also below 100, ranging from 57 in Iowa to 92 in Missouri. In the western portions the grasshoppers were especially destructive to late crops. Drought was also very severe in some localities. The heaviest losses fell upon the spring-wheat crop which was longest exposed to the destructive influences of insect and weather. The crop in Nebraska, where grasshopper ravages were most severe, shows the greatest reduction. Howard, Iowa, complains of a short yield and very low prices, only 60 cents per bushel. Cole, Missouri, reports the White Cliff variety as excellent for hills and uplands; millers prefer it to the Tappahannock. Barton, Kansas, found the Arnautka from the Department to yield double of any other variety, but its hard, flinty shell injured its reputation with the millers.

The Pacific States were also below 100. In several counties wheat that seemed heavy at harvest thrashed out far short of expectations, this grain being shrunk by excessive heat. San Joaquin, California, complains of low prices, \$1.45 per cental, about 87 cents per bushel. In Oregon, excessive rains in spring and extreme heat in summer reduced the average weight. Our few reports from the Territories do not indicate a promising crop. In La Plata, Colorado, an excessive growth of sunflowers cut down the crop, producing smut.

Frost is noticed at several points in Utah. In Tooele the Fultz was a failure from shrinking.

MAINE.—*Piscataquis*: Fine; late sown the best. *York*: Did not fill well. *Waldo*: But little raised; crop average.

VERMONT.—*Orleans*: Did not fill well; midge and hot weather.

RHODE ISLAND.—*Warren*: Thrashed out better than it promised at harvest.

CONNECTICUT.—*Litchfield*: Good quality, but winter wheat nearly a failure.

NEW YORK.—*Warren*: Drought. *Montgomery*: Poor yield and quality; winter-killed. *Genesee*: Better than was anticipated. *Livingston*: Less plump than usual. *Schuyler*: Minorca wheat the best yet tried here. *Erie*: Yield below expectations.

NEW JERSEY.—*Sussex*: Shortened by drought.

PENNSYLVANIA.—*Chester*: Fine crop, but too suddenly ripened, and hence its milling quality greatly depreciated. *Tioga*: Shortened by drought 25 per cent. *Lancaster*: Ripened too fast; the best Fultz wheat will yield but 25 bushels per acre, with straw enough for 35 bushels. Clawson wheat from the Department not successful. *Columbia*: Much shrunk. *Bedford*: Yields well; berries plump. *Armstrong*: Clawson wheat from the Department did very well; 4 quarts produced $1\frac{1}{4}$ bushels. *Blair*: Fultz one of the leading varieties. *Clearfield*: Light. *Westmoreland*: A splendid crop. *Potter*: Rusted. *Sullivan*: Rusty and light in weight. *Lehigh*: Shriveled some in ripening.

MARYLAND.—*Prince George's*: Above average. *Howard*: Slow starting in spring, but good. *Harford*: Fultz wheat the best crop, but as millers object to it as a flouring-wheat there will be less sown hereafter; Clawson rather inferior. *Calvert*: Fultz the favorite; yields better than any other variety. *Baltimore*: Turns out well; Fultz good everywhere, and will be extensively used. *Carroll*: Turning out well; Fultz the best variety, though infested with the fly.

VIRGINIA.—*Smyth*: Did not thrash out as well as was expected; quality good. *Orange*: Yield poor; injured by frost of May and extreme heat of June. *Russell*: Thrashed out less than was expected; quality good. *Prince William*: Quality poorer than last year. *Rockingham*: Best for several years. *Madison*: Yielded well in some localities; others half a crop. *King George*: Less than was expected; quality good. *James City*: Yield good; quality No. 1; harvested and thrashed at the right time. *Floyd*: Fultz and Clawson from the Department both excellent. *Dinwiddie*: Fine harvest-weather; Fultz the favorite, yielding about thirteen fold, while other varieties do not exceed seven fold. *Greenville*: The crops have done wonderfully; some farmers have realized twenty fold. *Bland*: Better saved than last year. *Loudoun*: Not over 11 bushels per acre; county mills give \$1 per bushel, which is better than shipping to outside markets, in which case commissions of various kinds reduce the farmer's share to 60 and 75 cents per bushel. *Charles City*: Neither Minorca nor Jennings yielded well; inferior to the Fultz. *Grayson*: Clawson and Fultz wheats from the Department very fine. *Highland*: Good quality, but short. *Westmoreland*: Short of expectations and of inferior quality. *Richmond*: Damaged by rain.

NORTH CAROLINA.—*Greene*: Injured by rust and smut. *Chowan*: Very good. *Iredell*: Thrashed out only a half crop. *Davidson*: Injured by late spring frost and bugs; ripened irregularly and much not at all; head turned grayish-white and became shriveled. *Person*: Very good. *Wilkes*: Thrashed out about half a crop. *Perquimons*: Better than for many years; replacing cotton on some farms. *Buncombe*: Cut off half by rust. *Polk*: Injured by rust.

SOUTH CAROLINA.—*Clarendon*: Acreage increased but not the average yield.

GEORGIA.—*Gilmore*: Fultz proves to be well adapted to our climate; it does well on low lands. *Upson*: Half a crop and of poor quality. *Terrell*: Jennings and Clawson wheats too late for the climate. *Jackson*: Almost a failure. *Dooly*: Best crop since the war. *Towns*: Jennings wheat from the Department does very well; suits the climate. *Carroll*: Rust and flies injured the crop. *Wilkes*: Injured by frost, rust, and bad weather while in the shock. *Lincoln*: Yield exceeds last year's.

ALABAMA.—*De Kalb*: Half average and of poor quality. *Crenshaw*: Above average. *Calhoun*: Failed; Fultz poor; Tappahannock, from the Department, the only success; the spring-wheat rusted.

MISSISSIPPI.—*Winston*: Fultz wheat from the Department a failure; white wheat and white oats stand a poor chance here.

TEXAS.—*Dallas*: Average 12 bushels per acre; quality inferior. *Ellis*: Some rust. *Cooke*: Almost a failure except the Mediterranean. *Williamson*: Damaged in the shock. *Collin*: Jennings and Fultz badly rusted. *Red River*: Thrashed out light. *Kaufman*: More or less damaged throughout the county. *Upshur*: Damaged by rust. *Kendall*: Good harvest weather. *Titus*: Cut down by rust. *Coryell*: Free from smut and of good quality but one-fourth short in quantity. *Bandera*: Fully made. *Victoria*: Wheat from California seed brought 40 bushels per acre. *Hunt*: Very inferior; chinchies and other destructive causes have been at work.

ARKANSAS.—*Johnson*: Injured in shock and stack. *Sevier*: Almost a failure. *Arkansas*: Full crops. *Independence*: Tappahannock a failure; rust; Walker the best variety.

TENNESSEE.—*Wilson*: About average. *Greene*: Heavy straw; grain injured somewhat by scab or spot. *Blount*: Half crop of inferior quality. *Trousdale*: Dull sale at 75 cents. *Loudon*: Thrashed out beyond expectation. *Tipton*: A failure. *Fentress*: Good crop. *Shelby*: Fine harvest season. *Sequatchie*: Damaged by rust, spot, and smut; harvested in poor condition; Jennings yielded sixteen fold; Clawson has rusted two seasons in succession. *Grundy*: Tolerable. *Putnam*: Fultz and Jennings from the Department have done remarkably well.

WEST VIRGINIA.—*Raleigh*: Very fine. *Braxton*: Fultz the best variety for the soil and climate; stands winter-freezing best. *Hardy*: Excellent in quality and quantity. *Mercer*: Good but not in proportion to the amount of straw. *Monroe*: Excellent in quality but yield not very large. *Jefferson*: Thrashing out beyond expectation.

KENTUCKY.—*Garrard*: Two quarts of Jennings from the Department produced a bushel; two quarts of Clawson, three pecks. *Shelby*: Yield below average but grain plump and fine. *Nicholas*: Yield not heavy but the grain is good. *Madison*: About all thrashed; quality fine. *Carroll*: Shortened by drought in May. *Jessamine*: Jennings wheat from the Department very satisfactory both in yield and quality. *Lincoln*: Superior, both in quantity and quality; Fultz ahead of other varieties. *Mason*: Fine quality but light yield; Fultz and Clawson very satisfactory.

OHIO.—*Wayne*: Fine yield for the amount of straw. *Coshocton*: Fultz wheat from seed sent out by the Department three years ago, is considered by farmers and millers the best variety ever cultivated in the county. *Delaware*: Half crop but of good quality. *Geauga*: Excellent quality, but the quantity less than usual; many fields winter-killed; experiments with Fultz and Jennings very satisfactory. *Sandusky*: Half a crop. *Huron*: Crop fair and of better quality than last year. *Clermont*: Good.

MICHIGAN.—*Marquette*: Eight quarts of Arnautka, sown May 18, yielded five bushels of fine grain August 18. *Iosco*: Winter-wheat not so good as last year; spring-wheat, a fair crop. *Alpena*: Wheat has done well, but has not equalled the extra crop of last year, when many fields averaged 50 bushels per acre; this year it runs from 30 to 40; Clawson wheat does well here. *Delta*: Warm, wet weather prevented a good deal of the wheat from filling well. *Lapeer*: Somewhat shrunk in ripening. *Barry*: Clawson wheat does finely after two years' trial; "Gold Medal" wheat turned out poorly. *Grand Traverse*: Shrunk by extreme heat while filling. *Leelenaw*: Late-sown spring-wheat shrunk by drought while in its milky stage in July. *Lenawee*: Grain light in proportion to the straw; ripening ten days too soon on account of rust and heat. *Tuscola*: Fine harvest weather. *Alcona*: Winter-wheat badly rusted and shrunk; spring-wheat only fair. *Calhoun*: Injured somewhat by heavy rains at blossoming. *Charlevoix*: Spring-wheat rusted. *Mecosta*: Winter-wheat the poorest crop we have ever raised here. *Saginaw*: Not over a half crop. *Shiawassee*: Much injured by excessively wet weather and by the midge. *Mason*: Harvested in fine condition. *Oakland*: Harvested in fine order; good weather; Clawson the most popular variety; Gold Medal winning favor.

INDIANA.—*Clark*: Good quality; harvest weather good; Fultz did not meet with

striking success. *Kosciusko*: Arnautka a failure. *Decatur*: Thin on the ground, but well grained. *De Kalb*: Injured by weevil and spring-freezes. *Saint Joseph*: Fultz yields better than any other variety; will be largely sown hereafter. *Franklin*: Light in yield, but of good quality and well harvested. *Knox*: Fultz the most popular variety; Tappahannock next. *Orange*: Thin on the ground, but of good quality; from 5 to 20 bushels per acre; Fultz, 32; Mediterranean, 14. *Pike*: Largest crop yet raised in the county; selling at 75 and 80 cents per bushel. *Warren*: Grain good; better than for several years. *Washington*: Grain good and well saved. *Wabash*: Half the crop taken by the weevil.

ILLINOIS.—*Bureau*: Almost a failure. *Carroll*: Nearly a total failure; 25,000 acres as good as lost. *De Kalb*: Small breadth sown; a failure. *Franklin*: Injured by rust in some parts of the county. *Jefferson*: Grain fine in most localities; a large breadth will be sown this fall. *Madison*: Good in some parts; light in others. *Mercer*: Spring-wheat will scarcely pay for harvesting. *Piatt*: Small breadth, but of good yield and quality; Fultz succeeds well; 2 bushels came from 2 quarts of seed. *Shelby*: Injured by excessive rains. *Winnebago*: Will not pay the cost of harvesting and thrashing; many farmers are buying wheat and flour from last year's crop. *Clark*: Short one-fourth, but of good quality and well saved. *Hamilton*: Sprouted some in the shock; that in the granary is in good order. *Lee*: Very near a failure. *Ogle*: From a fifth to a fourth of a crop will be realized; *Arnautka* wheat from the Department a failure. *Mason*: Fall-wheat good; spring-wheat a failure. *Pope*: A little damaged in the shock by rain. *Morgan*: Small breadth; crop better than was expected.

WISCONSIN.—*Dunn*: Some fields will not pay for harvesting at ruling prices in the northern parts of the county. Chinch bugs did not attack the *Odessa* when other varieties were near. *Washington*: Ruined by rust on the leaves, rot at the roots, and chinchies. *Clark*: Injured by excessive rains in July and August. Both winter and spring wheat below average. Fultz the best adapted to the climate; Tappahannock does not do well as it does not mature in time to escape rust. *Brown*: Greatly damaged by chinchies and weevil. *Columbia*: Light crop; six or seven bushels per acre on an average; few kernels in the head and many kernels shrunk; chinchies at work. *Crawford*: Poorest crop for many years, averaging not over seven bushels per acre. *Dodge*: Ranges from zero to thirty bushels per acre. That known as *Maine* wheat and by several synonyms succeeds the best; the crop will not average over 7 bushels per acre. *Fond du Lac*: Reduced by rust, Hessian flies, and chinchies to an average of not over 8 bushels per acre. *Walworth*: A failure; light in weight. *Green*: Our small sowing mostly taken by chinchies. *Adams*: Light crop; grain good. *Monroe*: Good condition, but light yield and poor quality; riddled by chinchies; not over half a crop. *Pierce*: Thrashes out short.

MINNESOTA.—*Yellow Medicine*: Injured severely by drought and grasshoppers. *Redwood*: Cut short by grasshoppers; average yield from four to ten bushels per acre. *Faribault*: Half crop; shortened by drought in June. *Jackson*: Average yield from four to six bushels per acre. *Steele*: Thrashing out about three-fourths average. *Winnona*: Short on thrashing. *Blue Earth*: Thrashing out from five to seven bushels per acre. *Isanti*: Shortened by drought. *Nobles*: A small portion escaped the hoppers. *Wabasha*: Surplus for export not a third of last year's surplus.

IOWA.—*Adams*: Averages 4 bushels per acre; quality good. *Benton*: Good quality; yield averages 7 bushels per acre. *Poweshiek*: Almost an entire failure. *Wayne*: Spring-wheat a failure; not one acre in a hundred harvested. *Jackson*: Spring-wheat will not return the seed sown. *Mitchell*: Half crop; good quality. *Hancock*: Short crop and good quality; will not average over 8 bushels per acre. *Hardin*: Light yield, but full, plump grain. *Howard*: Two-thirds of an average and only 60 cents per bushel; poor prospect. *Humboldt*: Thin on the ground, but grain of good quality. *Taylor*: Killed by rust. *Washington*: Nearly a failure. *Calhoun*: Very poor; best crops not over 12 or 14 bushels per acre; many not over 3 to 5 bushels; grain generally good. *Tama*: Light in yield and weight; averages about 7 bushels per acre and 50 pounds per bushel. *Cherokee*: Slightly damaged by grasshoppers; yield 8 to 10 bushels per acre. *Floyd*: Much wheat yields but 4 bushels per acre. *Marion*: Yield 1 to 10 bushels per acre; average not over 5; medium quality. *Audubon*: Good quality, but only 8 bushels per acre. *Sac*: Light yield.

MISSOURI.—*Chariton*: Injured by rust and rain during harvest. *Clay*: Harvested and stored in fine order. *Jefferson*: Half crop, and more or less damaged in the shock; Fultz the most successful. *Greene*: Harvested two-thirds of an average crop, and afterward injured in the shock. *Johnson*: Grain plump and heavy, but badly weather-beaten. *Nodaway*: Spring-wheat all killed with rust; winter, an average, well harvested. *Crawford*: Nearly ruined. *Mississippi*: Good average, and saved in better order than last year. *Perry*: Does not redeem its promise at harvest on thrashing out. *Ralls*: Injured by wet in the shock, and, on bottom-lands, by floods. *Cape Girardeau*: Crop short. *Pettis*: Nearly average in quantity and above average in quality; somewhat injured by rain in the shock. *Camden*: Injured severely by heavy rains and high waters; the last named has inflicted damage in the county to the farming inter-

est of not less than \$150,000. *Carroll*: Harvest wet and wheat more or less damaged. *Cole*: "White Cliff" wheat excellent for hills and uplands; straw stiff and ears long; millers prefer it to the Tappahannock. *Newton*: Thin on the ground; berry tolerably good; housed in good order. *Phelps*: Poor in yield and quality. *Dallas*: Badly rusted.

KANSAS.—*Jackson*: Crop good; berry plump. *Marion*: Much injured by rust; did not thrash out according to the promise of harvest; many fields did not pay for harvesting. *Nemaha*: Winter-wheat good; spring-wheat a failure. *Pawnee*: Shortened by drought in May; acreage three times that of last year. *Smith*: Chinchies took some pieces of spring-wheat; we have just raised our first crop of winter-wheat. *Doniphan*: Fall-wheat good, but spring-wheat was a failure. *Ellis*: Injured by drought in June; Minorca, from the Department, yielded 8 bushels per acre, and Jennings 25 bushels, with plump berries and heads averaging 4 inches in length; the last named is considered a very valuable seed for the climate. *Saline*: Winter-wheat poor, owing to drought and rust; spring-wheat yielded well, but the grain was too hard to be marketable. *Allen*: Fultz in universal demand for seed. *Barton*: Arnautka spring-wheat from the Department; it doubled the yield of any other variety, but the grain is hard and flinty, which injures its reputation with the millers. *Chase*: Will not average over 7 bushels per acre; poorest crop in ten years. *Woodson*: Plenty at 90 cents per bushel; 15,000 bushels to spare. *Montgomery*: Shortened by excessive rain at blooming-time; will not average over 12 bushels per acre; good quality.

NEBRASKA.—*Lancaster*: Grasshoppers. *Platte*: Grasshoppers too late for the crop. *Antelope*: About 13 bushels per acre; quality good. *Nemaha*: Injured somewhat by rains in harvest. *Richardson*: Grasshoppers took a third of the spring-wheat.

CALIFORNIA.—*Marin*: Crop of the State largely in excess of any former year; acreage and yield in the county about equal to last year. *Merced*: Thrashes out 30 or 40 per cent. short of what was expected at harvest. *San Joaquin*: Half crop; low price, \$1.45 per cental; many shipping on their own account. *Contra Costa*: Promise of extra crops not realized; shrunken by excessive heat. *Stanislaus*: Short on thrashing. *Del Norte*: Fine harvest weather.

OREGON.—*Douglas*: Excessively wet winter and spring caused late seeding, and hot days in July prevented the grain from filling. *Linn*: Fall-wheat lighter than was expected; spring-wheat nearly average and of superior quality.

COLORADO.—*La Plata*: Low average of the crop due to the enormous growth of sun-flowers springing up since the rainy season commenced, about the middle of July; crop smutted; some fields half smutted.

UTAH.—*Summit*: Severe frost. *Morgan*: Severe frost. *Toelle*: Best crop ever raised here; selling at 50 cents per bushel in cash; Fultz wheat a failure; shells too easy when ripe, and cannot be handled without loss. *Utah*: Crops on bench-lands do not meet the farmer's expectations.

OATS.

The condition of the oats crop, which averaged 86 on the 1st of August, declined to 81 on the 1st of September. It reached 100 only in Maine, Massachusetts, Rhode Island, Delaware, South Carolina, Georgia, Florida, and Michigan. Each of the great leading sections of the Union, taken together, shows low conditions. New England reports the highest condition, 98. In some of the northern counties of this region late sowings were a comparative failure on account of drought. The Middle States together were about 7 per cent. below average. Here late plantings suffered from drought and rust, making both yield and weight very light. Schuyler, New York, pronounces the Waterloo the best variety for that climate.

The South Atlantic States, as a whole, are 5 per cent. below 100, South Carolina and Georgia being above. In some of the northern counties of this region rust and heat, causing premature ripening, made the crop short and light in weight. Farther southward winter sowings were the most successful, spring sowings in many cases resulting in total failure. Carroll, Maryland, prefers the Schonen to all other varieties. The Gulf States, as a whole, are about 9 per cent. below average; Florida 105, showing the maximum, and Alabama 88, the minimum. The causes of decline are mostly those conditions of growth which produce rust. The red rust-proof and yellow-beard rust-proof are

favorites in several counties. The latter was introduced into Henry County three or four years ago; it is said to be more economical as a food for stock than corn, being raised and harvested at a much smaller expense. Prices in local markets rule low; Harris, Texas, reports 30 cents per bushel as the average price. Winter sowings are more general, and of these the earlier sown seem to secure the best results.

The inland Southern States all report low condition, ranging from 98 in West Virginia to 52 in Arkansas; this section, as a whole, is 16 per cent. below average. Drought and rust are alleged as reasons for the shortness of the yield and the lightness of the weight. The Red Rust-Proof is the favorite, especially in the southern counties. In the northern counties, where spring sowings are more common, these are especially light, while the winter sowings are generally promising. The region north of the Ohio River, which produces two-fifths of the crop of the country, shows the most depressed condition, being 24 per cent. below average on the whole; the States range from 56 in Illinois, the greatest oats-producing State in the Union, to 100 in Michigan. Several localities in the latter State enjoyed a very favorable combination of meteorological conditions; the copious rains of June being followed at the right time by the genial heat of July, not too great to prevent the full maturity of the grain. In the more southern counties this happy combination did not exist to any great extent. Excessive rains caused a rank growth, which extreme heat ripened prematurely; rust also formed on the crop, and other causes operated to shorten the yield and render the grain light and shrunken. The disproportion of grain to straw is of frequent mention in our reports; in many cases crops were not worth cutting, and live stock were turned upon them to graze. Marquette, Michigan, expresses a strong preference for the Holstein, which there made a remarkably fine growth this year. The crop shows a still lower condition in the States west of the Mississippi River, the whole taken together averaging but 66; the States range from 36 in Kansas to 78 in Minnesota. Drought, rust, and excessive rains are alleged in different counties as injuring the crop in different stages of its growth. The destructive grasshoppers injured this crop seriously in Western Minnesota and Iowa, and at several points in Kansas and Nebraska. Hardin, Iowa, complains at once of a poor crop and of low prices, farmers not being able to realize over 20 cents per bushel in the local markets. Instances of fields net worth harvesting are mentioned in widely-different portions of these States.

The Pacific States average about 92. Marin, California, attributes her low yield largely to the bad policy of seeding the same land to oats for many years without intermission. No drought is ever felt there, while the rolling ground furnishes a sufficient surface-drainage to prevent injury from successive rains. In La Plata, Colorado, sunflowers, which injured wheat, also grew up in the oats field, overshadowing and seriously injuring them. The grasshoppers attacked the crop at several points in the Territories. At some points in Utah crops were injured by early frosts.

MAINE.—*Penobscot*: Good. *Waldo*: Very good.

VERMONT.—*Grand Isle*: Injurious drought; late sowings almost worthless.

NEW YORK.—*Warren*: Drought. *Schoharie*: Short and light. *Montgomery*: Weigh 20 to 24 pounds per bushel. *Otsego*: Light. *Westchester*: Very light; drought. *Genesee*: Light yield. *Wyoming*: Shrunken by rust. *Niagara*: Destructive drought and heat. *Schuyler*: Waterloo the best yet raised here. *Erie*: Yield below expectation.

NEW JERSEY.—*Warren*: Straw short.

PENNSYLVANIA.—*Elk*: Fine promise reduced to half average. *Columbia*: Poorly filled and light. *Bedford*: Suffered from rain. *Beaver*: Badly rusted. *Butler*: Light

weight; poorly filled. *Westmoreland*: Crop large but grain light. *Potter*: Rusted; late plantings failed. *Berks*: Best crop for three years. *Forest*: Much injured by rust.

MARYLAND.—*Prince George's*: Below average. *Howard*: Poor, but better than usual. *Baltimore*: Late sowings ripened too fast. *Carroll*: Turning out well; *Schonen* takes the lead.

VIRGINIA.—*Russell*: Rusted considerably. *King George*: Yield excellent. *James City*: Fall sown good, partly making up for the deficiency of the spring sown. *Warwick*: Spring sowings failed; fall sowings yield fine crops besides abundant spring grazing. *Prince George*: Spring-oats almost a universal failure; winter-oats a fair crop. *Northampton*: Crops short; spring-oats weigh not over 24 pounds per bushel. *Richmond*: Damaged by rain.

NORTH CAROLINA.—*Union*: Very light; drought. *Alamance*: Winter sowings good; spring sowings failed. *Buncombe*: Rusted. *Polk*: Rusted; rains excessive at maturing season.

GEORGIA.—*Jefferson*: Much above average. *Upson*: Finest crop ever grown. *Jackson*: Remarkably good crop. *Oglethorpe*: Best in several years. *Dooley*: Best crop in twenty years. *Carroll*: Rusted. *Lincoln*: Increased yield.

ALABAMA.—*De Kalb*: Tolerable yield in spite of rust. *Henry*: Yellow-beard rust-proof oats successful.

TEXAS.—*Dallas*: Average 40 bushels per acre. *Ellis*: Some rust. *Williamson*: Early sown superior. *Red River*: Thrashed out light. *Upshur*: Heavier than last year. *Titus*: Very fair, especially the red rust-proof. *Harris*: Better than ever; jobbing at 30 cents per bushel.

ARKANSAS.—*Clay*: Ruined by rust, especially late sowings. *Arkansas*: Full crop. *Bradley*: Except the red rust-proof variety, oats have entirely failed.

TENNESSEE.—*Wilson*: Very heavy. *Greene*: Spring sowings injured by rust and spring frosts; winter sowings fine, with clean straw and heavy grain. *Blount*: Half crop of inferior quality. *Union*: Badly damaged by rust. *Tipton*: Almost average; less rust than last year. *Fentress*: Pretty good. *Shelby*: Fine harvest season. *Grundy*: Almost a failure.

WEST VIRGINIA.—Damaged by wet. *Preston*: Acreage greater than for fifteen years. *Raleigh*: Very fine. *Hardy*: Unusually fine.

KENTUCKY.—*Nicholas*: Half a crop. *Carroll*: Cut short by drought in May. *Lincoln*: Rusted; straw of no value.

OHIO.—*Ross*: Damaged by rain. *Delaware*: Large crop, but rather chaffy. *Geauga*: Heavy strawed, but badly lodged and poorly filled; the increased average will make good the diminished yield. *Sandusky*: Very poor. *Huron*: Fair crop; grain not very heavy. *Lorain*: Grain not in proportion to straw; large white kinds will average 37 pounds per bushel.

MICHIGAN.—*Marquette*: Holstein oats remarkably fine. *Menomonee*: Injured by the early rains. *Lapeer*: Very good. *Lenawee*: Light berry. *Charlevoix*: Light. *Mecosta*: Materially reduced by blight. *Saginaw*: Not one-half crop. *Oakland*: A good crop, well secured.

INDIANA.—*Clark*: Crop short, but grain good; the Surprise-oats from the Department in 1875 have done very finely. *Kosciusko*: Holstein did well; will give it further trial. *Decatur*: Ruined by rust; straw heavy, but grain light; not half will be harvested at all. *Franklin*: Ruined by rust. *Warren*: Yielding well. *Washington*: Greatly injured by rust. *Brown*: Killed by rust.

ILLINOIS.—*Carroll*: Light in yield and weight and low in price; 26,000 acres sown. *Clinton*: Drowned out. *Crawford*: Badly rusted; a large portion not worth cutting. *De Kalb*: Much rusted and shrunken; not over 21 pounds per bushel. *Effingham*: Rust from wet weather. *Franklin*: Shortened by rust resulting from wet weather in the forepart of the season. *Jefferson*: Grain light in weight; straw heavy. *Madison*: Light and poor; rust. *Marshall*: Almost ruined by rust. *Piatt*: About half the standard weight. *Shelby*: Injured by excessive rains. *Warren*: Promised well, but reduced a third in yield by rust; weigh but 23 pounds per bushel. *Winnebago*: Will not pay the cost of harvesting and thrashing. *Woodford*: But a small portion of the crop will be thrashed; excessive wet produced rust. *Hamilton*: Light weight. *Ogle*: Light crop. *Stephenson*: About two-thirds the average weight per bushel. *Macon*: Damaged by rust. *Mason*: Very light. *Pope*: Light; injured by rust.

WISCONSIN.—*Clark*: Greatly injured by excessive rains in July and August. *Brown*: Thrash out light; yield small. *Fond du Lac*: Little over half a crop. *Walworth*: A failure; lightest crop in thirty years. *Green*: Badly rusted; from 20 to 25 pounds per bushel.

MINNESOTA.—*Yellow Medicine*: Nearly all taken by grasshoppers. *Redwood*: Cut off by grasshoppers; from 8 to 20 bushels per acre average yield. *Jackson*: Ten to 15 bushels per acre. *Nicollet*: Ravaged by grasshoppers. *Steele*: Range from very poor to good; generally good. *Isanti*: Shortened by drought.

IOWA.—*Adams*: Mostly destroyed by rust; light and poor. *Poweshiek*: Light

Wayne: Very light; rusted. *Crawford*: Severely injured by blight. *Hancock*: Badly rusted; many crops not worth harvesting. *Hardin*: Light weight; rust. *Howard*: Light in weight and poor in quality; bring but 20 cents per bushel. *Jefferson*: Very little worth thrashing; do not weigh over 20 pounds per bushel. *Taylor*: Killed by rust. *Washington*: Nearly a failure. *Iowa*: Looked splendid; but were taken by rust when just filling. *Cherokee*: Yield 20 to 30 bushels per acre. *Floyd*: Light weight. *Sac*: Light yield.

MISSOURI.—*Clay*: Almost an entire failure from rust and wind. *Buchanan*: Half a crop; rust. *Greene*: Rusted badly. *Johnson*: Three-fourths ruined by rust. *Nodaway*: Nearly destroyed with rust. *Crawford*: Nearly ruined. *Mississippi*: Nearly ruined by wet; Holstein oats, from the Department, superior to all others. *Perry*: Half-crop; rust. *Ralls*: Damaged by rains; did not fill out. *Camden*: Rust very destructive; many crops not harvested; market-price for old crop, 25 cents per bushel. *Carroll*: Did not fill. *Newton*: Almost ruined by rust; not more than half the fields were cut. *Phelps*: Ruined by rust; crops very light. *Dallas*: Damaged by rust.

KANSAS.—*Jackson*: Almost ruined by rust. *Marion*: Rusted and light; many fields not cut. *Nemaha*: Suffered greatly from rust. *Pawnee*: Shortened by drought in May. *Doniphan*: Nearly ruined by wet weather. *Chase*: Almost a total failure. *Woodson*: Rust; selling at 20 cents per bushel. *Montgomery*: Failure; killed by rust.

NEBRASKA.—*Knox*: Riddled by grasshoppers; many fields not harvested. *Otoc*: Blasted. *Lancaster*: Grasshoppers. *Wayne*: Escaped grasshoppers; good condition. *Antelope*: Good. *Pawnee*: Almost a failure through rust.

CALIFORNIA.—*Marin*: Below average; farmers here are in the bad habit of sowing the same land to oats, sometimes as often as ten or twelve years successively. No drought ever felt here, while the rolling surface prevents injury from excessive rains. *Humboldt*: Destructive rust from late sowing and foggy weather in July.

OREGON.—*Linn*: Good.

COLORADO.—*Fremont*: Half destroyed by grasshoppers. *La Plata*: Injured by the spontaneous and excessive growth of sunflowers in the fields since the rainy season of July began. *Weld*: Badly injured by grasshoppers.

UTAH.—*Summit*: Slightly injured by frost.

RYE.

The condition of the crop is below 100 in the great majority of the States; it makes its best showing on the Atlantic and Pacific slopes. It was subject to the same extremes of heat and drought as the wheat-crop, but escaped with a smaller percentage of loss on the whole. The States full average or above are Vermont, Massachusetts, Rhode Island, Delaware, Florida, West Virginia, Kentucky, and Nebraska. The minimum, 75, is found in Arkansas, where grain-crops generally met with unfavorable conditions of growth.

NEW YORK.—*Niagara*: Destructive drought and heat.

NEW JERSEY.—*Sussex*: Shortened 25 per cent. by drought. *Bedford*: Extraordinary yield.

PENNSYLVANIA.—*Clearfield*: Light. *Lehigh*: Fair in quantity, but not so plump as could be desired.

MARYLAND.—*Prince George's*: Below average.

VIRGINIA.—*Madison*: Good.

NORTH CAROLINA.—Injured by rust and smut.

GEORGIA.—*Jefferson*: A little over average. *Dooly*: A good crop.

TEXAS.—*Dallas*: Averaged 40 bushels per acre. *Upsbur*: About equal to last year's crop. *Titus*: Light; cut by rust.

ARKANSAS.—*Arkansas*: Full crops.

KENTUCKY.—*Shelby*: Grain plump, but yield small. *Lincoln*: Good, sound, and well cared for.

INDIANA.—*Decatur*: Thin on the ground, but well grained.

ILLINOIS.—*Ogle*: Winter-rye generally good. *Stephenson*: Light crop, but of fair quality. *Walworth*: Medium crop.

KANSAS.—*Jackson*: Never better. *Doniphan*: Good crop.

BARLEY.

The barley-crop is in full condition or above, in only a few States, viz: Vermont, Rhode Island, South Carolina, Georgia, and Alabama, which, taken together, produce less than 1 per cent. of the crop of the country.

The great barley-producing States return the condition as follows: California, 98; New York, 89; Illinois, 57; Iowa, 79; Ohio, 88; Wisconsin, 88; Minnesota, 71. In these States, which raise five-sixths of the crop, the average condition of the whole is but 87. The crop of the whole country is at least 10 per cent. below 100. In Wayne, New York, the straw failed to yield grain; a result attributed to intense heat. In the East it was injured by drought and in the West by rain. In several counties of Illinois the crop was too poor to pay for harvesting. In the extreme Northwest it was exposed for a while to the ravages of grasshoppers. In Marquette, Michigan, the Golden Melon turned out finely, while in Doniphan, Kansas, the Probestier proved quite an acquisition. Wayne, Nebraska, complains that her crop is too high-colored for brewing.

VERMONT.—*Orleans*: Good; more raised than formerly.

NEW YORK.—*Genesee*: Good. *Wyoming*: Very fine. *Niagara*: Destructive drought and heat. *Livingston*: Less plump than usual. *Yates*: Thrashes out light.

TEXAS.—*Dallas*: Harvested 50 bushels per acre. *Red River*: Tolerable yield. *Titus*: Light crop; rusted.

OHIO.—*Ross*: Damaged by rain.

MICHIGAN.—*Marquette*: Golden Melon barley turns out very fair; shall give it a more extended trial next season. *Delta*: Good.

INDIANA.—*Franklin*: Injured by heavy rains in harvest; generally musty.

ILLINOIS.—*Winnebago*: Will not pay the cost of harvesting and thrashing. *Ogle*: Very poor. *Stephenson*: Light crop in quantity and indifferent in quality.

WISCONSIN.—*Brown*: Light crop. *Walworth*: Moderate.

MINNESOTA.—*Yellow Medicine*: Taken by grasshoppers. *Steele*: Generally good. *Rock*: Nearly escaped the grasshoppers.

IOWA.—*Poweshiek*: Light. *Howard*: Good yield.

MISSOURI.—*Nodaway*: Cut short by wet weather in early spring.

KANSAS.—*Jackson*: About average. *Doniphan*: Injured by wet weather. *Barton*: Probestier barley quite an acquisition.

NEBRASKA.—*Otoe*: Light. *Wayne*: Escaped grasshoppers, but is too high-colored for the brewers. *Antelope*: Good.

CALIFORNIA.—*San Joaquin*: Three-quarters of a crop.

COLORADO.—*Weld*: Badly injured by grasshoppers.

UTAH.—*Summit*: Slightly injured by frost.

BUCKWHEAT.

The acreage in buckwheat was increased in the more northern sections of the Union, especially in the New England and Pacific States, all of which report a larger breadth than last year. The midsummer drought prevailing in portions of the Middle States reduced the area devoted to this crop, especially in New Jersey, which reports an acreage less than three-fourths of that of 1875. The South Atlantic States about equal their previous acreage. None of the Gulf States report any culture of this cereal except Texas, which returns a decrease of 27 per cent. The States of the Mississippi Valley, on the whole, about equaled their acreage of 1875, Nebraska increasing about a third, and Kansas and Missouri decreasing about one-ninth. The Pacific States increase about 3 per cent.

The condition of the crop in New England was good on the whole at the close of July, but from drought and other causes it was reduced from 8 to 20 per cent. during August. The Middle States had their visitation of drought at a critical time for this crop, and consequently, with an unpromising start in July, many counties report it still poorer in August, while in one or two localities early frosts complicated the difficulties of the situation. In the South Atlantic States the small crop improved somewhat during August. In Highland, Virginia, Silver hull from the Department was the favorite seed. A farmer here, by

selection of the best Silver-hull heads, obtained a flowerless variety, a peck of the seed sown on an acre yielding 25 bushels. The crop of the Gulf States is inappreciable except in Texas, where the condition is about a fourth below average. It is somewhat below in the inland Southern States on the whole, having been reduced during August. In all the States north of the Ohio River the condition declined, except in Indiana. Early frosts here injured the crop in several localities. West of the Mississippi it was reduced in all the States, especially in those counties visited by grasshoppers. The crop of Nebraska was cut down nearly one-half during August. The crop suffered considerable reduction in the Pacific States, where it is 8 or 9 per cent. below average.

VERMONT.—*Grand Isle*: Shortened by drought. *Rutland*: Suffered from drought.

CONNECTICUT.—*New London*: Not seeding as much as usual; too hot and dry.

NEW YORK.—*Greene*: Without speedy rain the crop will be a failure. *Schoharie*: Not half a crop. *Delaware*: First frost; slight damage to buckwheat. *Dutchess*: No rain for six weeks; half crop. *Broome*: Affected by drought. *Allegany*: Spoiled by drought and heat. *Columbia*: Injured by drought.

PENNSYLVANIA.—*Tioga*: Nearly ruined by heat and drought. *Bedford*: Very promising. *Beaver*: Some farmers think that buckwheat is too exhausting to the soil, and sow it more sparingly. *Armstrong*: Suffered from drought in August. *York*: Promising. *McKean*: Greatly shortened by drought. *Cameron*: Greatly injured by drought. *Wayne*: A failure. *Northampton*: No rain for six weeks; very poor. *Cambria*: Crop extra if frost holds; looks well. *Warren*: Some lowland crops frosted August 20. *Potter*: Drought and frost severe on the crop. *Lawrence*: Looks well. *Lycoming*: Very short. *Wyoming*: Half destroyed by drought.

VIRGINIA.—*Prince William*: Seeded late, but will be a fine crop if the frost delays. *Highland*: Promises well, but not certain till thrashed. Silver hull the best variety. A farmer has discovered a new variety, by selecting the best heads of the Silver hull. A quarter-peck of this seed produced 25 bushels; it has no blossom, and forms grain from the ground up. The grain is larger than ordinary and somewhat rough.

TEXAS.—*Titus*: Doing finely.

TENNESSEE.—*Fentress*: Crop fine.

WEST VIRGINIA.—*Preston*: Average greater than for fifteen years. *Mercer*: Looks fine.

MICHIGAN.—*Delta*: Good. *Tuscola*: Injured by early frost. *Muskegon*: Only raised on light lands, and there it did not fill well; too dry and hot.

INDIANA.—*Kosciusko*: Golden Melon a failure. *Decatur*: Promising. *Stark*: Half the crop killed by frost August 20.

ILLINOIS.—*Hardin*: Buckwheat from the Department has done well; well suited to soil. *Effingham*: Too wet. *Madison*: Not yet in seed.

MINNESOTA.—*Steele*: Generally good.

IOWA.—*Harrison*: Destroyed to a great extent by grasshoppers. *Humboldt*: Nearly ruined by grasshoppers. *Greene*: Destroyed by grasshoppers. *Sac*: Nearly destroyed by grasshoppers.

MISSOURI.—*Nodaway*: Never better.

KANSAS.—*Graham*: Destroyed by grasshoppers.

NEBRASKA.—*Osage*: Swept by grasshoppers. *Merrick*: Ruined by grasshoppers. *Seward*: Grasshoppers destroyed 80 per cent. of the crop. *Boone*: Destroyed by grasshoppers. *Antelope*: Swept by grasshoppers. *Nemaha*: Injured by rains in harvest.

COLORADO.—*Weld*: Destroyed by grasshoppers.

COTTON.

The September returns, while averaging a higher condition than is usual in this month, are lower than those of August. This decline is usual; it is almost inevitable. After the spring floods and frosts, which often affect the plant unfavorably in limited areas, there is usually a sunny season, very favorable to growth, powerful in repairing the losses of the early spring and summer; but when the time of fruitage approaches and vitality becomes impaired the critical period of the crop is at hand, the autumn rains appear, winds and floods are liable to destroy, blight comes with decay, lice abound, the caterpillar becomes abundant by reproduction. If any or most of these fail to appear by

September 1st the planter is more fortunate than usual and the decline less than the accustomed ratio. It is possible for a crop to improve in condition in August, but the reverse is oftener the case.

In North Carolina the decline has been from 96 to 93, caused by excessive moisture and rust; in South Carolina, from 97 to 91, from blight caused by great extremes of heat and moisture; in Georgia, from 104 to 90, by drought mainly, and in less degree by rust and caterpillars; in Florida, from 89 to 83, by worms and rust; in Alabama, from 103 to 83, from causes similar to those operating in Georgia, with greater prominence of the caterpillar; in Mississippi, from 92 to 87, mainly from too much rain, with some injury from the boll-worm and caterpillar; in Texas, from 106 to 87, from various causes operating either together or separately in the different sections, as drought, rains, rust, boll-worm, and caterpillar. In Tennessee and Arkansas the decline is scarcely perceptible, amounting to but 1 per cent., and in Louisiana there is a gain of 1 per cent.

For the last five years, the September averages have been as follows:

States.	1876.	1875.	1874.	1873.	1872.	1871.	1870.
North Carolina.....	93	90	87	95	101	82	105
South Carolina.....	91	80	86	86	95	80	105
Florida.....	90	76	77	90	96	78	105
Georgia.....	83	75	77	85	92	75	115
Alabama.....	83	87	81	85	88	80	100
Mississippi.....	87	98	74	82	90	80	100
Louisiana.....	90	88	62	80	86	77	108
Texas.....	87	94	65	92	94	80	109
Arkansas.....	97	99	47	93	78	95	110
Tennessee.....	119	96	52	92	92	96	100
Average.....	92.3	88.3	70.4	88	91.2	82.3	105.7

The following extracts from September returns are given as indices of local peculiarities of the crop-history:

VIRGINIA.—*Sussex*: Very fine prospect.

NORTH CAROLINA.—*Wilson*: Fine rains to August 10 greatly improved the crop, but the rust afterward showed itself generally, reducing its promise. *Onslow*: Too much weed, and less heavily bolted than last year; will open later. *Union*: Opening very fully; best crop since the war. *Orange*: Rather too much rain. *Jones*: Excessive rain caused shedding on light, weak soils; opening fast, and will be speedily gathered. *Greene*: Cold weather in July caused general rust in August, shortening the crop 25 per cent. by shedding. *Columbus*: Season favorable; no worms or rust. *Cumberland*: August rains cut down the crop to an average one; some rust. *Chowan*: Injured by rust. *Beaufort*: A very large crop cut down to average by excessive rains. *Iredell*: Greatly improved by August rains. *Nash*: Rusted considerably on light highlands; doing well on stiff soils. *Wayne*: Shortened 25 per cent. by rust. *Mecklenburgh*: August crop very good; weed not large, but bolls heavy and blooms abundant and full; no insects. *Pamlico*: Injured by rains in August. *Perquimons*: Shortened by excessive rains; shedding forms and bolls. *Gaston*: Started late, but doing well. *Edgecombe*: From very good to very bad; three or four days earlier than last year. *Carteret*: Fair prospect. *Camden*: Good crop. *Hertford*: Shortened at least a third in the upper townships by rains falling for fifteen days. *Wake*: The great injury inflicted by the rains of July was aggravated by the drought of August; opening rapidly.

SOUTH CAROLINA.—*Edgefield*: Extreme heat and drought following copious rains cut cotton from 120 to 80; injury especially apparent on highly-manured crops. *Newberry*: Many blooms failed to perfect forms on account of excessive rain, yet the yield is promising and of good quality. *Darlington*: Extreme heat and drought following excessive rains have made the cotton to scald and shed; crop still large, but not in proportion to the weed. *Barnwell*: Shortened by drought. *Horry*: Yield less than last year. *Chester*: Seriously injured by drought and rust within the last fifteen days. *Beaufort*: Caterpillars have appeared in sea-island cotton on the mainland, but not in great numbers. *Clarendon*: Injured by heavy rains. *Williamsburgh*: Injured by rust in consequence of excessive rains; has shed badly in many places; yield still promises

20 per cent. more than last year. *Marlborough*: Extreme drought and heat; premature opening of bolls; seeds small and light. *Chesterfield*: Rust comes later than usual, but is very general. *Lexington*: Average crop; opening splendidly. *Marion*: Rust general; bolls small, and hands gather only three-fourths the average amount per day. If the weather remains dry most of the crop will be gathered by the end of September. *Union*: Injured by recent drought.

GEORGIA.—*Twiggs*: Injured by heavy rains, followed by drought. *Stewart*: Unfavorable weather, drought and black rust; caterpillars present on the fresh bottom-lands where the crop is late; considerable shedding. *Jefferson*: About average. *Upson*: Great destruction from drought in all uplands. *Whitfield*: Injured by drought. *Terrill*: Took rust much earlier than usual, which has damaged the crop seriously; crop will be gathered by October 15; never opened so early before. *Macon*: Drought has played havoc; cotton-fields look as they usually do in November; 40 per cent. already open; 90 per cent. will be gathered by October 1. *Jackson*: Decreased acreage; looks well. *Floyd*: Injured by drought commencing July 20, also by grasshoppers. Some rust in bottom crops. *Dodge*: Rust is shortening the crop. *Clayton*: Within two weeks heat and drought have greatly reduced the crop; forms shedding. *Bulls*: Heat and drought have reduced the condition of cotton 10 per cent. within fifteen days; rust already showing itself. *Baldwin*: Reduced 30 to 40 per cent. since August 1. *Walton*: Some complaint of shedding, but, on the whole, cotton appears in fine condition. *Richmond*: In lower part of the county fine rains have raised the crop above average; in the upper part drought has reduced it below. *Oglethorpe*: Suffering from heat and drought. *McDuffie*: Reduced 10 per cent. by drought. *Fulton*: Shedding badly from drought. *Dooley*: Shortened 20 per cent. by rust; no top crop except on new lands, on which rust is not likely to come. *Worth*: Drought has cut cotton down to half a crop. *Heard*: Shedding badly; some rust. *Haucock*: Drought has played havoc with the crop so promising at last report; rust is also destructive; most of the cotton has ceased making, and a large portion is leafless and dead. *Harris*: Cut down to an average by drought and worms. *Baker*: Badly rusted in some places. *Thomas*: Rusted badly. *Troup*: Drought since August 12; small bolls, shedding as fast as they come out. *Scriven*: Badly rusted; middle crop shortened, and top crop cut off. *Pulaski*: Badly rusted; drought over a third of the county. *Muscogee*: Rust and caterpillars. *Elbert*: Fine season. *Carroll*: Drought causing plants to shed; nearly half the August crop has fallen. *Barlow*: Injured by drought and grasshoppers. *Wilkes*: Fertilized upland crops losing nearly all their forms and small bolls; larger bolls opening prematurely. *Coveta*: Greatly parched up. *Columbia*: Drought beginning to tell on the crop. *Cobb*: Drought caused shedding of forms. *Early*: Caterpillars riddled the crop in spots. *Henry*: Reduced one-third by drought of twenty days. *Lincoln*: Shed profusely from August drought. *Taylor*: Seriously injured by rust within two weeks. *Wilcox*: Rusted very badly; growth stopped. *Polk*: Drought damaging a very fine crop.

FLORIDA.—*Jackson*: Rust and worms destructive. *Columbia*: Looking well; caterpillars have just appeared. *Madison*: Caterpillars in the western part of the county, but no great damage yet; rust has appeared, and the crop is opening rapidly; weather dry. *Jefferson*: Caterpillars badly injuring the crop; they threaten to close it out by the middle of September; rust, also, is very general; weed small, but well fruited; labor reliable. *Gadsden*: Deteriorated since last report; rust prevalent everywhere; dry hot weather stimulates the opening of the bolls.

ALABAMA.—*Dallas*: Since August 20 caterpillars have stripped the plants of their foliage, inflicting a loss of 40 per cent. on the crop as it previously promised; no remedies have been found successful. *Etowah*: Where good conditions of growth have been enjoyed the plants are well stalked, but poorly fruited; if frosts delay, the yield may approximate an average. *Morgau*: Two weeks' drought has greatly damaged the most promising crop we have had for years. *Limestone*: Shedding badly from drought. *DeKalb*: Runs too much to weed. *Crenshaw*: Rust and worms; crop average on sandy land. *Clarke*: Large weed; caterpillars plenty. *Conecuh*: Caterpillars greatly damaging the top crop. *Autauga*: Caterpillars by the million; seem to be closing out the crop. *Perry*: Two-thirds of the county swept by caterpillars; they have destroyed the leaves, squares, and small bolls; they are moving northeast, according to their custom; the flies preceded them ten days; they fed greedily on figs, rotten apples, cider-pumice, &c.; they remained about a week. *Franklin*: Two months' rain; crop injured same. *Coffee*: Shedding; excessive rains in some parts; rust and worms in others. *Clay*: Excessive rains have stimulated the top growth so as to cover and overshadow the bottom fruit, preventing the bolls from a full development. *Russell*: Considerable rust and worms; crop opening fast. *Monroe*: Weed large, but not well fruited; young cotton doing well; worms in some places. *Bullock*: Injured by rust and caterpillars; the poor condition of bottom crops reduces the general condition 25 per cent. below average. *Lowndes*: Reduced by worms and wet weather. *Jackson*: Too much rain. *Hale*: Caterpillars have reduced the crop to three-fourths of an average. *Greene*: Caterpillars at work; there will be a fair bottom crop, half a middle crop, and no

top crop: the whole will be about half an average. *Chambers*: Fine growing season. *Blount*: Very fine condition; weed well developed and full of bolls. *Marengo*: Completely stripped by caterpillars. *Lauderdale*: Weed large, but lightly balled; worms numerous. *Colbert*: With a late fall the crop will be large. *Pike*: Worms all over the county; cotton-fields filled with specters; shortened 15 to 20 per cent.

MISSISSIPPI.—*Rankin*: Some injury from floods and rust; worms have appeared. *Lee*: Excessive rains produced rust and shedding; boll-worms also destructive. *Kemper*: A failure; not possibly over a half-crop; caterpillars have stripped the stalks clean within ten days. *Claiborne*: Improved during August. *Lincoln*: Too much rain in August caused the young bolls to fall off; reduced 10 per cent. *Adams*: Shortened some by drought, but seasonable weather promises its improvement; caterpillars have appeared, but their operations do not indicate any serious damage. *Tishomingo*: Growth good; season favorable. *La Fayette*: Injured by drenching rains in the first half of August. *De Soto*: Injured 10 per cent. by cool, dry weather for the last ten days. *Choctaw*: Looks well to date. *Lowndes*: Caterpillars stripping the foliage completely; crop cut down 33 or 50 per cent. below average. *Covington*: Injured by excessive rains producing rust; also by worms to some extent. *Coahoma*: Excessive rains have caused early plantings to shed; both late and early have grown so large that much will be lost from rot; this will bring the yield down to about what was realized last year. *Winston*: Injured by excessive rains. *Jasper*: Rain for the last twenty days; rust and worms doing great injury. *Falabusha*: Poor, especially on bottoms; losing forms rapidly. *Wayne*: Good; no worms yet. *Grenada*: Injured by heavy rain-storms and wet weather. *Amite*: Acreage diminished. *Lauderdale*: Equal to the best crop during the last ten years. *Clarke*: Top crop destroyed by excessive rains and caterpillars; most of the crop open. *Jefferson*: Worms; shortened 25 per cent. compared with last year; opening fast.

LOUISIANA.—*Caddo*: Drought and worms; not over three-fourths of a crop. *Franklin*: Two or three weeks late; small. *Morchouse*: Two-thirds of a crop; drought. *Washington*: Heavy rains caused shedding. *Rapides*: Drought and worms; the latter not very formidable. *La Fayette*: Improved by late dry weather. *Richland*: Crops on high lands have ceased to make, and are opening rapidly; late plantings on low lands are making and opening fast, but cannot make a full crop. *Concordia*: Injured by recent rains, especially on low lands. *East Baton Rouge*: Improved by recent rains. *Claiborne*: Reduced by drought of August. *Jackson*: Opening finely; fields white; excellent picking-weather; yield will be 20 per cent. greater than last year.

TEXAS.—*Smith*: Unverified reports of boll-worm cut down the probable condition to average; otherwise it would be about 40 or 50 per cent. above. *Nacogdoches*: Drought and boll-worms have caused considerable shedding. *Medina*: Drought caused the bolls to fall and the aftergrowth to cease. *Marion*: Best crop in five years. *Dallas*: Greatly injured by drought for three weeks. *Travis*: Two months of drought have caused serious shedding of late forms and blooms. *Rusk*: Cotton is opening well, but the boll-worm is injuring small bolls. *Polk*: Injured by wet weather and worms, but the latter have not yet done much harm; their third crop is expected to eat up the cotton; early cotton out of danger. *Burnet*: Forms and leaves falling; drought for six weeks. *Williamson*: Decreased acreage; drought injurious. *Waller*: Worms destructive, taking even the leaves of the grown bolls. *Matagorda*: Early plantings injured by rain; later taken by caterpillars; the best cotton cannot make over half a crop. *Lamar*: Boll-worms more alarming than destructive. *Brazoria*: Crop promising. *Bell*: Upland cotton 25 per cent. short from drought; sandy bottoms not much better; stiff soils but slightly injured. *Washington*: Caterpillars in the southern part of the county; too late for most of the crop. *Red River*: A few boll-worms. *Kaufman*: In excellent condition; opening fast. *Austin*: Too much weed under the rains of June and July; subsequent intense heat caused great shedding, especially on sandy uplands; worms have made a clean sweep. *Panola*: Some early cotton injured by the drought; boll-worms somewhat injurious. *Hamilton*: Early plantings injured by drought, but recent rains have brought out later plantings; older cotton shed its squares to a great extent. *Bosque*: Badly needs rain. *Bastrop*: Drought through July and August, with intense heat, cut down the crop at least one-third; a few worms. *Titus*: Crop looks fine, but plants are too large and do not show the damage of the boll-worm; yield 25 per cent. below average. *Lavaca*: Injured by drought and late plantings by caterpillars. *Harrison*: Looks well; season remarkably favorable to growth and fruitage. *Coryell*: Not possible to make over a half crop. *Caldwell*: Drought and extreme heat cut down the crop one half. *Bowie*: Uplands will yield as good a crop as the lowlands; crop of better quality than usual. *Kerr*: Suffering from drought, which will shorten the crop. *Navarro*: Drought has cut down the crop from 100 to 50; a great deal is now dead, and the best of weather cannot start the remainder to any great action. *Somervell*: Drought has greatly shortened the crop; small bolls and squares have mostly dropped off, and those left will not grow as large as usual. *Victoria*: Worms have stripped the stalks and leaves, but have appeared later than last year; the plant having a fine growth will yield as largely as last year and a finer staple.

Beaer: No rain for two months; cotton shedding its top crop. *Hant*: Boll-worms have injured the crop 25 per cent. *Nexton*: Greatly improved.

ARKANSAS.—*Jackson*: Greatly injured by excessive rains; shedding fast. *Drew*: Some rust. *Dallas*: Injured by excessive rains. *Clay*: Too much weed. *Saint Francis*: Generally damaged by blight; not over half a crop; light middle crop, and no top crop, unless the weather should be favorable for the next fifteen days. *Prairie*: The extreme heat of the last ten days of August was a great benefit to cotton; opening finely. *Johnson*: Planted in too close rows for a dry season, whereas it has been wet; plants too large, especially on bottoms; bolls and squares rotting and falling. *Franklin*: Bottom crops too rank; below average; upland crops over average. *Bell*: Boll-worms bad in the bottoms; not seen yet on the uplands. *Sevier*: Shedding severely on the uplands; drought. *Nevada*: Worms have appeared. *Monroe*: Drought and heat succeeding excessive rains have caused the plants to shed considerably; weed large but not well fruited; without further disaster, the yield will still be above average. *Columbia*: Greatly shortened by drought. *Arkansas*: Still growing and not opening fast. *Independence*: Has commenced opening and looks well. *Lonoke*: Doing finely. *Craighead*: Opening finely. *Pulaski*: Continued wet weather has ruined the bottom crop. *Clark*: Some damage by boll-worms. *Ashley*: Some rust. *Bradley*: Maturing well; picking began two weeks earlier than usual. *Fulton*: Weed rank and healthy but too large, and sparsely fruited.

TENNESSEE.—*Wilson*: Looking well. *Hardeman*: Prospect gloomy; half the middle crop of fruit has fallen; rain threatens the top crop. *Gibson*: Late but thrifty. *Tipton*: Very fine; yield will be large if frosts do not come very early. *Maury*: Immense growth of weed; with continued fine weather and late frosts a full average crop will be made. *Shelby*: Crop will be enormous.

The following notes are from the August returns:

VIRGINIA.—*Sussex*: Cotton looks as well as I ever saw it, and promises over an average crop.

NORTH CAROLINA.—*Columbus*: Seriously injured by June rains; bad stand and small, but fruiting finely. *Duplin*: Very little growth made in July; small for the season, but may yet make an average crop. *Edgecombe*: Unprecedented drought from July 2 to 23, but light rains since. *Gaston*: Belated by cold and wet in May and June, and consequently behindhand; it seems to be doing well, but a drought is impending. *Greene*: Shortened ten per cent. by drought. *Iredell*: Late and small in weed; rain must come soon if we are to get much over half a crop. *Mecklenburgh*: Good stand in a very good condition. *Nash*: Retarded, but shows no rust or disease; weed sufficiently large and fruiting well. *Orange*: Very promising. *Pitt*: Shortened by local drought. *Union*: Very good. *Wake*: Drought; local rains have raised the average prospect to three-fourths of a crop. *Wilson*: Late rains somewhat repairing the damage of former drought. *Stokes*: Drought of six weeks. *Hertford*: Good; heavily loaded with forms and bolls; yield promises to be greater than last year. *Perquimons*: Season fine for cultivation and growth. *Jones*: The prospect for a large yield of cotton was never better up to July 15; since then excessive rains have caused a destructive shedding; prospect below average.

SOUTH CAROLINA.—*Chester*: Lost 10 per cent. by drought. *Chesterfield*: Two weeks late, but looks well generally. *Clarendon*: Early wet spell caused the joints to grow larger and longer than usual; subsequent dry weather enabled planters to clean the crop; growing rapidly, and may make an average. *Georgetown*: Small, late, and unpromising; declined within the month. *Marlborough*: Doing well. *Newberry*: Season favorable; growth good, promising a fair August crop. *Union*: Decreased area, but full average condition; labor unusually effective, and grass well cleaned out. *Horry*: Acreage increased 25 per cent; crop eight to ten days later than last year; recent heavy rains have injured lowland crops; those of the uplands are running too much to weed; the bolls will blight as soon as the water gets out of the ground. *Richland*: Season favorable. *Spartanburgh*: Promising. *Darlington*: Season good. *Marion*: "Honey dew" and lice have appeared, probably caused by cool nights, and give apprehensions of rust on cotton.

GEORGIA.—*Baker*: Very flattering condition, but August is our test month for cotton. *Berrien*: July drought did some damage causing it to shed fruit, and, in some cases, to rust. *Brooks*: Doing as well as usual for the season. *Carroll*: Looks finely and is full of bolls, but even a short drought would cause it to shed; some appearance of rust. *Clayton*: Very promising; if the season continues favorable the crop will be large. *Cobb*: Looks remarkably well, but is liable to attack of grasshoppers which are injuring other crops. *Coffee*: Greatly injured by drought in July. *Doole*: Needs rain; fruit beginning to shed. *Floyd*: Somewhat injured by grasshoppers. *Gwinnett*: A little late; plant not very large but well fruited; with favorable weather in August and September the crop will be a full one. *Richmond*: Weed small. *Telfair*: Full average. *Thomas*: Looks well; continuance of good seasons will secure a full crop.

Walker: Drought. *Baldwin*: Crop in a critical stage; seasonable showers give a great development of weed, flowers, and bolls, but there need a continuance of fine weather to escape injury. *Early*: Remarkably flourishing. *Jefferson*: Season remarkably propitious so far. *Lincoln*: Doing well, though two weeks later than last year; some indications of rust. *Madison*: Ten days late; stands not good on low lands. *Stewart*: Season good; cotton-flies in some localities. *Terrell*: Rust in some places; caterpillars have appeared but as yet have done no damage. *Upson*: Weed below average but well fruited. *Walton*: Crop full average; season favorable. *Henry*: Looks fine. *Jackson*: Tolerable; reduced acreage. *Whitfield*: Injured by drought. *Wilkes*: Late but doing well. *Taliaferro*: Never better, except in a few localities injured by hail-storms; they are above average size at this point of the season and are growing and fruiting rapidly. *Forsyth*: Weed good and well fruited; rain excessive for the last few days.

FLORIDA.—*Jackson*: Doing well, and bearing heavily; full crop if no disaster befall. *Jefferson*: Well worked, but shortened by drought; some caterpillars reported. *Lery*: Prospect remarkably favorable. *Madison*: Very good; well fruited. *Gadsden*: Not improved since last report; stands bad, and fruitage defective; 25 per cent. below average; now suffering from drought.

ALABAMA.—*Baldwin*: Planted late, but growing fast and quite healthy; generally very clean. *Barbour*: Good; some little rust on sandy ground, but condition in advance of last year. *Calhoun*: Weed large, but fruitage not entirely satisfactory. *Clarke*: Crop good, but two weeks later than last year; some caterpillars, but no harm done yet. *Coffee*: Prospect better than since the war; some reports of worms. *Colbert*: Very good. *Conecuh*: Doing well; clear of grass; some caterpillars reported. *Dallas*: Ten or fifteen days behind-hand; army-worm generally present. *Hale*: Two weeks later than last year; weed large, but not well fruited; caterpillars have appeared, but have webbed up; the third crop will probably be destroying the cotton in August. *Jefferson*: Crop very promising. *Macon*: Caterpillars have appeared, but no damage reported yet. *Pike*: Late, but promising. *Bullock*: Ten days late, but full average in condition; caterpillars in force on black lands; some are trying Paris green. *Cherokee*: Fine growth of weed; fruiting tolerably. *Monroe*: Better than last year on uplands, but injured by excessive wet on bottoms; ten days late; caterpillars have appeared. *Morgan*: Unusually good.

MISSISSIPPI.—*Adams*: Worms reported in south part of the county. *Amité*: Acreage reduced; looks well. *Carroll*: Never more promising. *Clarke*: Some caterpillars, but no great damage yet. *Coahoma*: Tends to large weed; too much rain. *Grenada*: Promising; season favorable. *Lauderdale*: Abundant rains; crop very promising. *Neshoba*: Very fine. *Perry*: Late, but more promising than at this time last year. *Wilkinson*: Damaged by drought. *De Soto*: Very promising. *Holmes*: Benefited by late rains. *Lincoln*: Improved fast during July, but backward on account of late start in the spring. *Lowndes*: Full average. *Madison*: Doing well. *Marion*: Army-worms at work; will make their grand attack about August 20; this indicates a crop 20 per cent. less than last year. *Rankin*: Injured by drought. *Claiborne*: A month late and small, but well formed and balled. *Jefferson*: Smaller than at this time last year and suffering for rain; drought for two months. *Monroe*: If no disaster occurs, our crop will be the largest since the war; labor efficient and abundant.

LOUISIANA.—*Bienville*: Cotton late, but promising. *Caddo*: Shortened 15 per cent. by drought; some worms heard of, but no damage reported. *Carroll*: Destructive drought in July. *Concordia*: Where not overflowed the crops look well, except on sandy soil, which has not had enough rain; on overflowed land very poor and six to eight weeks behind time; some worms reported; no efforts yet made to destroy them. *Franklin*: Smaller than usual; drought. *Madison*: Much improved during July; seasonable rains. *Rapides*: Small; lack of rain; condition good. *West Feliciana*: Small but healthy and doing well. *Bossier*: Crops better than for 10 years; labor in better condition. *Claiborne*: Small, but healthy and growing.

TEXAS.—*Anderson*: Twenty per cent. better than the average of past years; labor capricious and unreliable. *Austin*: Has developed weed too fast; many fields grassy; beginning to open; rumors of worms. *Bastrop*: Promising, but needs rain; acreage reduced. *Burleson*: Growing fast and beginning to open. *Burnet*: Still backward; retarded by drought. *Caldwell*: Best crop since the war. *Collin*: Good condition; promises an extra yield; acreage slightly reduced. *Dallas*: Never better. *Harrison*: Remarkably fine; no shedding of squares as in former years. *Henderson*: Very large for August. *Kendall*: Prospects excellent. *Lavaca*: Crop late, but the best for many years; picking has begun. *Matagorda*: Oldest cotton poorly balled; late cotton scarcely any fruit yet. *Medina*: Drought. *San Jacinto*: Crop late but promising, except where there has been too much rain. *Somervell*: Very fine; if no rain falls in ten days it will begin to shed. *Titus*: Fine prospect, though excessive rain has enlarged the weed too much. *Upshur*: Larger than last year, but the blooms are less numerous. *Washington*: Weather very propitious. *Williamson*: Condition full average; acreage slightly reduced. *Wood*: Large, clean and full-fruited; some signs of

boll-worm. *Angelina*: Very fine. *Bexar*: Looks well, but needs rain. *Brazoria*: Greatly improved during July. *Colorado*: Injured by drought and worms. *Hunt*: Prospect very favorable. *Marion*: Best crop ever raised here, but worms have appeared. *Rush*: Very good crops; 5 per cent. above average. *Smith*: Promise extra; hot days and warm nights. *Uvalde*: Full average. *Bosque*: Crop promises to be much better than last year; stand good and well cultivated; plants loading heavily with forms and fruit; rain needed. *Tannin*: Too rank weed for a heavy crop; some fields overflowed. *Lampasas*: Beginning to suffer from drought.

ARKANSAS.—*Clay*: Late and growing to weed. *Columbia*: Promising, though late; continued seasonable rains. *Fulton*: Healthy and growing; blooms and bolls abundant. *Lonoke*: Excellent growing season. *Monroe*: Too much rain in some places for cotton, which is beginning to shed squares; in other places the crop is promising. *Nevada*: Better than for many years. *Perry*: Rather too much rain. *Prairie*: Running to weed. *Stone*: Season fine; prospect excellent. *Yell*: Never more promising. *Arkansas*: Damaged 35 or 40 per cent. by high water. *Calhoun*: Excessive wet, causing shedding. *Clark*: Injured by heavy rains. *Jefferson*: Looks well but needs rain. *Serier*: Too much rain.

TENNESSEE.—*Gibson*: Prospect good. *Hardeman*: Very promising. *Lincoln*: Doing well. *McNairy*: Prospect never better. *Maury*: Outlook very good. *Rutherford*: Greatly superior to the crops of 1874 and 1875. *Shelby*: Prospect very encouraging.

POTATOES.

Returns for August 1 indicated a condition for the entire crop averaging about 94. The States above 100 were, in the North, Maine, 103; in the interior, Delaware, 106; Tennessee, 108; Kentucky, 103; in the South, South Carolina, 101; Georgia and Texas, 105; west of the Mississippi, Arkansas, 106; Missouri, 103; Kansas, 105; Nebraska, 107; California, 101. Among States producing heavy crops New York returned 88; Pennsylvania, 93; Ohio, Indiana, and Illinois, 95; Michigan, 90.

Drought was the leading cause of reduction. In Rhode Island, where the condition was reduced to 42, Washington reported no rain for forty-seven days following June 5. The next lowest, 60, was in New Jersey, where drought was general and severe. It was quite general, though less severe, in North Carolina, Louisiana, Wisconsin, and Minnesota. Local effects of dry weather, reducing condition in a less degree, were noted in Massachusetts, Connecticut, New York, Pennsylvania, Virginia, and Iowa. Returns generally indicate that the beetle, where present, had been less ravenous than heretofore. In Vermont and Massachusetts its presence was noted in a majority of returns, but they agreed in representing it harmless. In New Hampshire, in Cheshire, farmers were "still fighting the beetle," but in Hillsborough it had done very little injury. Its ravages were more extensive in New York and Michigan. Its presence, with slight injury, was also reported in Connecticut, New Jersey, Pennsylvania, Kentucky, Ohio, Indiana, Illinois, and Dakota Territory. Indications of rotting were only reported in a single county each in Louisiana, Illinois, Oregon, and Washington Territory.

The September returns report extensive injuries to the crop in August by drought throughout the Northern States, and by grasshoppers in Minnesota, Kansas, and Nebraska, and to a less extent in Iowa and Colorado. Eight counties in New York and two in Pennsylvania report more or less injury by the Colorado beetle; a dozen other States specify the same cause for reduction, each in a single county only. In Hamilton, Illinois, "the old-fashioned potato-bug" damaged the late crop. Rust or blight is noted only in Chautauqua and Wyoming, New York; Pulaski, Virginia; Iasco and Montcalm, Michigan; Outagamie, Wisconsin; and Humboldt, California. In Utah the crop was considerably damaged by an unprecedented frost August 9. The condition falls

largely below 100 in nearly all the States producing heavy crops: New York, 57; Pennsylvania, 74; Ohio, 84; Illinois, 92; Michigan, 64; Maine, 82; Wisconsin, 94; Iowa, 97; Indiana, 83; Vermont, 91; New Hampshire, 92; New Jersey, 45; Missouri, 95. Among other States in which the crop is a staple, the following return a low condition: Massachusetts, 65; Connecticut and California, 63; Maryland, 89; Virginia, 86; Kansas, 93. The States reporting above average are, North Carolina and Kentucky, 101; Alabama, 105; Mississippi, 106; Texas, Arkansas, and Tennessee, 104.

The notes below are from the September returns.

MAINE.—*York*: Few and small. *Penobscot*: Late potatoes suffering for rain. *Franklin*: Shortened 50 per cent. by drought. *Piscataquis*: Suffering from drought. *Oxford*: Injured much by a severe drought of six weeks. *Waldo*: Prospect of a light crop. *Cumberland*: Injured by drought.

NEW HAMPSHIRE.—*Carroll*: Badly injured by drought. *Cheshire*: Too dry.

VERMONT.—*Franklin*: Shortened by drought. *Grand Isle*: Apparently ruined by drought. *Rutland*: Have suffered from a drought of six weeks, and in some localities from beetles. *Windsor*: Late potatoes damaged by severe drought. *Orleans*: Not quite average in yield, but good in quality.

MASSACHUSETTS.—*Worcester*: Very light drought. *Hampshire*: Reduced by drought and the beetle to 40. *Hampden*: Many pieces an entire failure; drought. *Plymouth*: Have suffered from dry weather.

CONNECTICUT.—*New London*: Severely injured by the beetle; small, and the yield not more than 50 per cent.

NEW YORK.—*Greene*: Late potatoes hardly worth digging; drought. *Washington*: The lightest crop ever grown; drought. *Schoharie*: Not half a crop; the driest for twenty years. *Montgomery*: Very fine and dry. *Saratoga*: Injured by drought. *Chautauqua*: Will not be 10 per cent. of an average, owing to beetles and rust. *Genesee*: Shortened by drought. *Onondaga*: Late potatoes ruined; the beetles and drought have spoiled the crop. *Kings*: All harvested and sold. *Warren*: A failure threatened from drought. *Dutchess*: Reduced 50 per cent. by drought. *Madison*: Injured by severe drought. *Orange*: Much injured by the beetle. *Wyoming*: Struck with blight; will not be half a crop. *Browne*: Reduced by drought and beetles. *Ontario*: A light crop; drought. *Schuyler*: The beetles entirely destroyed many fields. *Sullivan*: Scarcely half a crop; drought and beetles. *Suffolk*: Beetles have proved very destructive. *Erie*: Light.

NEW JERSEY.—*Cumberland*: Look well where the beetle has been kept off. *Ocean*: Owing more to drought than to the beetle, many farmers will not get their seed back, and not one in twenty will have enough for home use. *Mercer*: Have suffered seriously from drought.

PENNSYLVANIA.—*Cambria*: The large tops dying off fast, without producing an average crop. *Northumberland*: Destroyed by the great drought. *Wayne*: A failure; no rain since July. *Blair*: Have suffered from the intense heat. *Butler*: Few and small; drought. *Cameron*: Injured by the very dry and hot August. *McKean*: Badly injured by drought. *Monroe*: Reduced by the severest drought ever known. *York*: Rapidly maturing; promise well. *Armstrong*: Have suffered from drought in August; early potatoes were extra good. *Bedford*: Less in quantity but better in quality than last year. *Elk*: Very light crop. *Tioga*: Materially shortened by extreme drought. *Chester*: A poor crop owing to drought and the beetle. *Warren*: Greatly reduced by protracted drought. *Indiana*: A large crop; in excess of demand. *Lehigh*: Cut short by drought and the beetle. *Sullivan*: Tops all died prematurely; poor crop. *Lycoming*: Very poor in quantity and quality.

MARYLAND.—*Montgomery*: Seriously injured by drought.

VIRGINIA.—*Dinwiddie*: The late crop almost a failure. *King and Queen*: The late crop making nothing, owing to the beetle; early potatoes were good. *Russell*: Very good. *Elizabeth City*: Late potatoes injured by drought. *Pulaski*: Mostly dug, and found to be badly rotted.

NORTH CAROLINA.—*Greene*: A good crop.

GEORGIA.—*Dooley*: Very fine. *Fulton*: The best yield ever made. *Brooks*: Being injured by drought. *Decatur*: Very much damaged for want of rain. *Jefferson*: Excellent.

FLORIDA.—*Gadsden*: A large acreage; suffering from drought. *Hamilton*: Doing well.

MISSISSIPPI.—*Greene*: Good. *Hancock*: Short crop, from protracted drought.

TEXAS.—*Caldwell*: Cut short one-half by drought. *Titus*: Never better. *Upshur*: The finest ever raised in the county; many 3½ inches in diameter. *Hunt*: The largest

crop ever known here. *Newton*: The late planting almost a failure; too hot and dry.

TENNESSEE.—*Monroe*: Never better. *Greene*: Heavy yield. *Grundy*: Very promising. *Bledsoe*: Better than ever known.

WEST VIRGINIA.—*Braxton*: Very good. *Wetzel*: Favorable weather has done wonders for the crop.

KENTUCKY.—*Shelby*: But half of last year's acreage.

OHIO.—*Ashtabula*: Much injured by drought in the northern section. *Williams*: Short, from drought. *Athens*: Late, shortened by drought. *Delaware*: Good. *Sandusky*: Only enough for home consumption. *Tuscarawas*: Injured by the grub-worm. *Muskingum*: Late planted far below average, owing to drought.

MICHIGAN.—*Mason*: Not turning out as well as expected. *Kalamazoo*: Small, but good in quality. *Tasco*: Small yield, and beginning to rot. *Delta*: A good crop, and the quality first-rate. *Montcalm*: Poor crop, owing to wet weather; Early Rose affected with rot. *Hayne*: Early, light from drought; late, light from the beetle. *Calhoun*: Injured by rains. *Charlevoix*: Poor in yield and quality. *Muskegon*: Small yield, but of good quality. *Kent*: Not over half a crop; drought.

INDIANA.—*Decatur*: Late potatoes will not yield well. *Elkhart*: A failure, from beetles and wet weather. *Wabash*: Never did so well before on our bottoms.

ILLINOIS.—*Bureau*: Early, good; late, comparatively nothing. *Hardin*: Poor stand, but looking well. *Hamilton*: Early, good; late, injured by drought and the old-fashioned potato-bug. *Ogle*: Light crop. *Johnson*: Late potatoes nearly destroyed by the beetle. *Pope*: Two-thirds of a stand; do not look healthy.

WISCONSIN.—*Outagamie*: Signs of rot. *Clark*: Threatened with rot. *Brown*: Reduced by excessive wet and the beetle. *Crawford*: A big crop. *Fond du Lac*: Very light.

MINNESOTA.—*Fairbault*: Injured by grasshoppers 50 per cent. *Nicollet*: Much of the crop destroyed by grasshoppers. *Rock*: Reduced to 25 by grasshoppers.

IOWA.—*Benton*: Best crop ever raised. *Howard*: Beetles cleared some fields and left others untouched. *Sioux*: Reduced to 10 by grasshoppers. *Greene*: Being injured by grasshoppers. *Sac*: Injured 50 per cent. by grasshoppers.

MISSOURI.—*Nodaway*: Never better. *Caldwell*: Badly injured by weeds. *Newton*: Matured before the drought, and are good.

KANSAS.—*Jackson*: Good. *Ellis*: Injured by drought.

NEBRASKA.—*Otoe*: Grand yield. *Cuming*: Late potatoes injured by grasshoppers. *Saunders*: Largely destroyed by grasshoppers. *Wayne*: Injured by grasshoppers. *Antelope*: The beetle very destructive, and the grasshoppers finished the crop.

CALIFORNIA.—*Humboldt*: Will be a light crop; all early planted killed with blight.

OREGON.—*Clackamas*: Late.

COLORADO.—*Weld*: Badly injured by grasshoppers.

UTAH.—*Morgan*: A severe frost August 9 destroyed 33 per cent. A more severe frost on the 21st. *Summit*: Badly injured by a very severe frost on the morning of August 9. Ice was formed from one-fourth to one-half an inch thick.

SWEET POTATOES.

At the 1st of August the crop as a whole was in a promising condition. Prevalent dry weather had reduced it in Virginia to 94; in North Carolina to 96; and in Louisiana to 91. South Carolina returned an average of 99; Kentucky, 100; and all the other States in which sweet potatoes are a crop worthy of notice a higher condition; New Jersey, Mississippi, and Tennessee, 103; Georgia, 106; Alabama and Arkansas, 108; Texas, 111.

The September returns show a reduction of condition in August of 9 per cent. in New Jersey, 5 in Georgia and Ohio, 4 in Florida, Missouri, and California, 10 in Texas and Nebraska; an advance of 3 per cent. in Maryland and Virginia, 2 in North Carolina, 4 in Mississippi, and 7 in Kentucky. In the remaining States the variation from the condition at the 1st of August is slight.

VIRGINIA.—*Dinwiddie*: Promise of a good crop. *King and Queen*: Very fine. *Northampton*: Short crop; fleas seriously injured early plants.

SOUTH CAROLINA.—*Lexington*: Suffering from drought.

GEORGIA.—*Appling*: Dying from drought.

FLORIDA.—*Columbia*: Too dry for the crop. *Putnam*: Not rain enough to set sweet potatoes.

ALABAMA.—*Bullock*: Fine. *Monroe*: Large increase over any previous year in acreage. *Coffee*: More planted by half than since the war. *Conecuh*: Never better.

LOUISIANA.—*Richland*: Cut short by drought. *Lafayette*: Injured by the dry weather. *Jackson*: An abundant crop of the best quality.

TEXAS.—*Titus*: Prospect of a fine yield. *Upshur*: Large for the season. *Austin*: Promise of the largest crop for years. *Washington*: Never more promising. *Williamson*: Three weeks early, and the largest crop ever raised. *Burnet*: Suffering for rain. *Rusk*: Promise a large yield. *Marion*: Splendid. *Medina*: Reduced by drought. *Newton*: Injured by drought.

TENNESSEE.—*Monroe*: Never better. *Greene*: Very promising. *Fentress*: Will be an enormous crop.

WEST VIRGINIA.—*Braxton*: Very good.

KANSAS.—*Woodson*: Largest and best crop ever raised.

TOBACCO.

The larger tobacco States report a low condition: Maryland, 72; Virginia, 65; North Carolina, 69; Tennessee, 80; Kentucky, 77; Ohio, 97; Missouri, 87. This indicates a reduction in August of 8 per cent. in Maryland and Virginia, 4 in Tennessee, and 9 in Missouri; but a gain of 5 per cent. in Kentucky, 3 in Ohio, and no change in North Carolina. The condition averages better in States producing less quantities: Massachusetts, 103; Connecticut and West Virginia, 102; Pennsylvania, Louisiana, and Texas, 101; Georgia, 100.

In York, Pa., a promising crop is maturing rapidly. In Maryland the crop was extensively injured by drought in August; in Calvert it is firing badly from this cause. From Virginia an extraordinary attack of worms is reported in Fluvanna; much damage by a worm that eats its way into the pith of the stalk, and by grasshoppers in Franklin, and destructive work by the horn-worm in Halifax. In Mecklenburgh, the crop has improved very much since rains set in. Much of it is too late to ripen in Franklin, and the late crop is doing almost nothing in Louisa.

In Kentucky, too much rain is causing some crops to french in Carroll, but, otherwise, returns respecting the promise of quality are generally favorable. In Gallatin, the condition of the crop, on diminished acreage, is the best ever seen. In Simpson, also, though not more than 25 per cent. of a crop, is good in quality.

MARYLAND.—*Charles*: Much injured by early rains and grass. *Montgomery*: Seriously injured by the driest August for many years. *Calvert*: Smallest crop for several years; firing badly from dry weather. *Howard*: Dry weather has cut off the late plantings, but the crop will be average. *Prince George's*: So injured from drought that it did not recover after rains set in.

VIRGINIA.—*Caroline*: Not more than one-third of the usual crop can be raised. *Campbell*: The prospect very unpromising. *Cumberland*: Cannot be more than 33 per cent. of a crop, and much of that small and light. *Dimwiddie*: The early planted is looking well; late planted doing badly—barely half a crop can be made. *Madison*: Improving; some crops very heavy, but not average in quantity or quality. *Brunswick*: Almost a failure. *Fluvanna*: Not a fourth of a crop, and that suffering from an uncommon invasion of worms. *Carroll*: Excellent prospect. *Franklin*: The crop 67 per cent. less than last year, and a large portion so late that it cannot ripen. *Louisa*: Improved since last report, but not more than half a stand, and that now suffering for rain. *Orange*: Shortened by drought. *Pulaski*: Has improved since the last report. *Halifax*: Late and unpromising; horn-worms never more destructive; not half a crop will be secured.

NORTH CAROLINA.—*Person*: Though not more than 25 per cent. planted, is in good condition. *Warren*: Too much rain. *Iredell*: Good in quality, but only half a crop planted. *Orange*: The small crop will average fairly. *Stokes*: Cannot make more than 20 per cent. of a crop, and that will be late and poor. *Buncombe*: Looking well.

TEXAS.—*Titus*: Bad stand, but the condition improving. *Newton*: Injured by drought in August.

TENNESSEE.—*Weakley*: Looks well. *Smith*: Has suffered from too wet weather. *Trousdale*: About half a crop. *Gibson*: Fine. *Wilson*: The crop will be small, but the qual-

ity good. *Perry*: Almost a failure in product. *Dickson*: Only 25 per cent. of an average; failure in plants and wet weather.

WEST VIRGINIA.—*Mercer*: Above average. *Monroe*: Rather late. *Wetzel*: Backward, but with a favorable season will make an average crop.

KENTUCKY.—*Webster*: Greatly improved in the last twenty days. *Cumberland*: Late. *Calloway*: Will be 67 per cent. of an average crop. *Carroll*: Too much rain; some crops injured by frencbing. *Henry*: Something more than half a crop will be produced. *Logan*: Only 40 per cent. of a crop set out, and much of that eaten by the grasshoppers as soon as set.

OHIO.—*Noble*: Too wet for tobacco. *Clermont*: Now being cut. *Missouri*—*Nodaway*: Never better. *Lawrence*: Much larger crop than for years past. *Carroll*: Very promising.

NEBRASKA.—*Saunders*: Wholly ruined by grasshoppers.

SUGAR-CANE.

Sugar-growing in some parishes in Louisiana appears to be extending. The report from Iberia states: "The area in cultivation has been much enlarged; plantations and machinery have been greatly improved, and many plantations which have not grown cane since the war will make crops for the market this year." In the fourteen counties making returns for cane, the condition averages 95. Returns from Georgia average 101; Florida, 100; Alabama, 114; Mississippi and Texas, 107; Arkansas, (four counties,) 110.

GEORGIA.—*Dooley*: Fine, but suffering for rain in localities. *Brooks*: Being injured by drought. *Decatur*: Very much damaged for want of rain. *Upton*: Very fine. *Jefferson*: Excellent.

FLORIDA.—*Gadsden*: The condition still favorable, but rain is now needed. *Hamilton*: Doing well. *Columbia*: Half blown down.

ALABAMA.—*Bullock*: Fine. *Conecuh*: Doing well. *Crenshaw*: Never better.

MISSISSIPPI.—*Perry*: Looks well; 125. *Lincoln*: Favorable as could be desired.

LOUISIANA.—*Saint Mary's*: The season remarkably fine and the acreage considerably increased. *Iberia*: Have had excellent seasons for cane.

TEXAS.—*Harrison*: African, Creole, and Chinese cane largely planted, and it looks well; sugar-cane bids fair to become a standard production here. *Titus*: Very fine. *Upshur*: Doing well. *Newton*: Injured by drought in August.

STOCK-HOGS.

The numbers of stock-hogs reported on the 1st of September are greater in the South than at the same period last year, and less in the central corn-belt of the West. In the Eastern and Middle States, the numbers are slightly reduced by a decrease in New York, Pennsylvania, and Massachusetts, which is not fully compensated for by an increase in Northern New England and in New Jersey. Most of the States which furnish the animals for the large packing-establishments of the West are deficient, in comparison with their stock of last autumn, both in numbers and condition, though there is less falling off in the latter than in the former. The average decline in numbers is 5 per cent. The percentages of numbers and condition are, in detail, as follows:

States.	Numbers.	Size and weight.
Kentucky	88	98
Ohio	95	98
Indiana	89	96
Illinois	88	97
Iowa	102	97
Missouri	99	99
Kansas	132	111
Nebraska	129	112

The small numbers in Kansas and Nebraska, in comparison with those of Iowa and Illinois, prevent their large percentage of increase from affecting materially the average of depreciation. These eight States hold about 52 per cent. of the swine of the United States, and, in point of value, probably two-thirds of the whole, and supply to commerce nearly all of its pork-products for home-distribution and exportation, the swine of other States being used mainly for family or neighborhood supplies. Upon the supply of these eight States of the West, in conjunction with the corn-supply, must, therefore, depend the quantity for commercial distribution and the ruling prices for the season. The decline in numbers throughout the country averages 2.6 per cent.; in the pork-packing district, 5 per cent.

In some localities scarcity of stock, occasioned by extraordinary inducements for fattening during the past winter and spring, is assigned as a cause for decrease in numbers; but the general and chief cause reported for reduction in both numbers and condition is the prevalence of disease, usually designated as hog-cholera. North of the Potomac and east of the Ohio the only instance reported is in Snyder, Pennsylvania, where some farmers have lost nearly all. Disastrous effects of the disease on numbers and condition are reported in North Carolina—Chowan, Gates, and Pitt; Georgia—Elbert, Randolph, and Fulton; Florida—Hamilton, Jackson, and Suwannee; Alabama—Madison, Conecuh, and Dallas; Mississippi—Greene and Choctaw; Texas—Colorado, Titus, Kaufman; Tennessee—Monroe and Bedford, (50 per cent. have died, but the survivors in good condition;) Kentucky—Garrard, Marion, and Spencer; Ohio—Warren, Henry, and Greene; Indiana—Decatur, De Kalb, Shelby, and Marion; Illinois—Jackson, Mercer, and White; Iowa—Crawford and Washington; Missouri—Crawford, Henry, Pitts, Cole, Holt, and Randolph. Returns from other counties in Missouri, Iowa, and some other States, note the presence of cholera, so called, but not occasioning serious loss or injury. On the other hand, there is in some localities an improvement in numbers and condition, because of freedom from cholera where it had previously prevailed. Its comparative absence gives promise of a large increase over last year in Gadsden, Florida. In Richland, Louisiana, where, except on large farms, plenty of pork will be made, hogs are young and small, because of cholera for several years past; but this year there is no disease among them.

The return from Franklin, Ohio, states that there is a reduction of 10 per cent., owing to the prevalence of cholera last year, of which there are still some remains, and adds: "If all feeders would separate their hogs into small lots, give plenty of room, and keep the lots clean, I think hog-cholera would soon cease."

An abundant mast-crop is reported in various localities in Virginia, West Virginia, Kentucky, Indiana, Texas, and Arkansas. In Floyd, Virginia, "hogs will get fat in the woods, and millions of bushels of acorns and chestnuts will go to waste for want of hogs to eat them," and in Buchanan all oaks are loaded with mast. In Greenbrier, West Virginia, "a heavy mast-crop will more than make up for the deficiency in the corn-crop." In Kentucky, the finest mast-crop ever known is reported in Marion; also, in Owsley, "but no hogs to eat it;" also, remarkably fine in Livingston, upon which hogs "will get fat." In Floyd, Indiana, the oak, hickory, walnut, and chestnut trees are all loaded with nuts.

Notes of correspondents in the Southern States confirm the figures by frequent references, not only to increased numbers the present season,

but increased attention to improvement of hog-stock and to the advantages of growing, over importing, meat for home consumption.

PENNSYLVANIA.—*Snyder*: The hog-cholera has broken out within a few weeks, and some farmers have lost nearly all.

VIRGINIA.—*Northumberland*: Good condition, but very few raised—not half enough to supply the home demand. Very few raised by the colored population, who are the chief consumers. *Dinwiddie*: The high price of bacon has caused farmers to give more attention to hogs, and the stock is improving. *Floyd*: Hogs will get fat in the woods. *Prince William*: The high price of pork last year induced farmers to fatten hogs to such an extent that not many except brood-sows were left; consequently we shall have nothing except spring pigs to kill this fall. *Halifax*: More attention given to raising hogs, which are healthy and thriving.

NORTH CAROLINA.—*Nash*: Doing well and are largely on the increase. *Greene*: More hogs for fattening than for ten years. If no disease prevails this fall, the county will be self-supporting in respect to hog products, which has not been the case for ten or twelve years. *Buncombe*: Very scarce and small; no good hogs in the county. *Chowan*: About 50 per cent of our hogs have had the cholera, which continues to rage. Much of our poultry has died from the same cause. *Gates*: Hog-cholera has prevailed to an alarming extent. *Pitt*: Hogs continue to die of cholera, and no treatment yet resorted to relieves them. *Wilson*: A disposition to raise more hogs of good quality; some sickness.

SOUTH CAROLINA.—*Barnwell*: The number of hogs to report is becoming less and less, and without some improvement must soon be left out of the list.

GEORGIA.—*Elbert*: Cholera has reduced the condition of stock-hogs and the number for fattening. *Randolph*: Stock-hogs nearly died with cholera. *Dooly*: Cholera raging in some localities among hogs, but not so fatal as last year. *Fulton*: Over 20 per cent. lost by cholera.

FLORIDA.—*Gadsden*. The comparative absence of cholera this year gives promise of a large increase of stock-hogs over last year. *Hamilton*: Cholera quite prevalent among hogs during the spring and summer; has cut off at least 40 per cent. *Jackson*: Have increased in number, but the cholera has made sad havoc in some localities. *Suwannee*: Have died off badly from cholera, and the condition is bad, owing to disease.

ALABAMA.—*Madison*: Hog-cholera is prevailing in localities. Should it not abate, but few will be left to kill. *Conecuh*: Have lost at least 25 per cent. from cholera, and the surviving are in bad condition. *Crenshaw*: Doing well. *Limestone*: Our hog prospect is better than since 1860. *Dallas*: A violent type of hog-cholera is prevalent and defies all remedies yet tried. *Lauderdale*: The hog-crop is the best since the war, and will be ample for home consumption; price, 5 cents per pound.

MISSISSIPPI.—*Greene*: The business of raising hogs is so much interrupted by cholera that we sometimes almost lose stock for seed. *Coahoma*: There is a growing demand for hogs and a promise of nearly enough for home consumption next year. *Choctaw*: The decline is from cholera; the surviving hogs are inferior. *La Fayette*: The law which now makes the stealing of hogs a felony seems to have produced a most salutary effect. The hogs are not stolen nearly so much, and there is a probability that we can make our own meat this year—the first year since the war. *Perry*: Increased in numbers 25 per cent., but small in size.

LOUISIANA.—*East Baton Rouge*: Hog-raising is once more obtaining a footing, as the freedmen are stealing less and depending for a living more upon the fruits of their labor. *Richland*: People are giving more attention to the raising of hogs, and, except on large farms, plenty of meat will be killed.

TEXAS.—*Colorado*: Cholera has diminished the number of stock-hogs 50 per cent. *Titus*: Condition fair, but dying from cholera, measles, and staggers. *Panola*: Below average in number and condition, but we have plenty of food wherewith to fatten, and nothing to fear in the absence of disease. *Austin*: The number comparatively small, except in the wooded sections, where they are in good condition. *Kaufman*: Scarce owing to heavy losses from cholera. *Red River*: Some cholera, but increase in stock; fine mast, and plenty of corn. *Washington*: Not enough to use up the heavy crop of corn. *Burnet*: Stock-hogs very poor. *Fannin*: The crop will be sufficient for home use, with some surplus; the probable price, 4 cents net.

ARKANSAS.—*Independence*: Look well; abundance of acorns and of old and new corn. *Crittenden*: A marked improvement; the high price of bacon and the fine corn-crop have put the farmers to raising hogs. *Franklin*: Healthy and doing well. *Johnson*: Healthy and doing well; a fine prospect for acorns; plenty of hogs will fatten with but little corn. *Saint Francis*: Unfortunately but few to which to feed the large corn-crop. *Benton*: The increase in the past year has been wonderful, and a good portion is improved stock. *Fulton*: Plenty and in fine condition.

TENNESSEE.—*McNairy*: Fair; corn being very plenty. *Monroe*: Scarce, for both stock and pork, owing to cholera. *Smith*: Below average in number, but above in quality and weight. *Tipton*: Greater number than for years, and the condition very

fine. *Bedford*: Diminished 50 per cent. by cholera, but the living are in fine condition. *Blount*: Rather scarce and small. *Gibson*: More abundant than for several years; condition favorable, though some complaint of cholera. *Ferry*: Will be a large increase in the amount of pork put up this year.

WEST VIRGINIA.—*Greenbrier*: An increase on last year's stock. Many of the farmers now make their pork from spring pigs. A heavy mast-crop will more than make up for the deficiency in the corn-crop.

KENTUCKY.—*Garrard*: Dying rapidly of cholera in localities. *Shelby*: A falling off in numbers and weight, owing to the fattening of large numbers last spring, caused by high prices and a surplus of corn. *Marion*: Finest crop of oak-mast ever known, but hogs very scarce, and many dying of cholera. *Calloway*: Stock-hogs and pork abundant. *Boyle*: Much lighter in weight than usual. Many spring pigs will be fed for market. *Mason*: Will be light, owing to the fact that the older and larger were fattened and killed in the summer. Some cholera. *Spencer*: Small crop, many having died of cholera, so called. Those for feeding are young and small, but the heavy corn-crop will bring them on. *Gallatin*: Short in numbers but above average in size and condition. *Owsley*: Best mast ever known, but no hogs to eat it. *Livingston*: Will get fat on the remarkably fine mast.

OHIO.—*Ross*: Cholera doing some damage. *Franklin*: Reduced 10 per cent. by the prevalence of hog-cholera last fall and winter. Have a little of it now; one farmer has lost 119. *Delaware*: The number in the county last year, 18,784; this year, 20,248, and 10 per cent. larger and better. *Warren*: Cholera sweeping off shot and ravaging fattening hogs. *Henry*: Many dying of cholera or some fatal disease; many losing whole herds; others, fearing the disease, have sold off all their stock-hogs. *Greene*: In some parts the hog disease has made sad havoc, taking in a few instances the entire herd, and, in many, 50 per cent. and upward.

MICHIGAN.—*Delta*: Few raised, but the number rather on the increase.

INDIANA.—*Decatur*: Stock-hogs scarce and dying of cholera. *De Kalb*: Disease is sweeping off hogs by the hundred, and no remedy is yet found. *Cass*: Some are dying of cholera. *Franklin*: Numerous; some dying with cholera, so called. *Hamilton*: Most of the hogs for feeding are spring pigs; some cholera, but not yet half as bad as last year. *Shelby*: Short crop, owing to cholera. *Marion*: Stock-hogs scarce; much complaint of cholera.

ILLINOIS.—*Hardin*: In splendid condition. *Jackson*: Cholera is killing what few we have left from last fall. It kills about 98 per cent. wherever it goes; turkeys and chickens are dying with it. *Madison*: Very scarce. *Marshall*: Plenty; cholera in some localities. *Mercer*: Dying badly in some parts of the disease known as cholera. *White*: Few were kept over, and 66 per cent. of them have died of cholera.

WISCONSIN.—*Crawford*: Not so large a stock of fattening hogs as last year. *Richland*: Very thin, owing to a short corn-crop last year.

MINNESOTA.—*Redwood*: Numerous and in good condition, but no feed with which to fatten.

IOWA.—*Crawford*: Many have died of a disease similar to cholera. *Hardin*: A little short and thin, owing to the late corn-crop last year. *Jefferson*: Owing to the short corn-crop, large numbers of stock-hogs have been sold and shipped West. *Washington*: Hog-cholera beginning to rage; some have lost their entire stock. *O'Brien*: Are being rapidly sent out of the county since the destruction of our crops by the grass-hoppers.

MISSOURI.—*Clay*: Dying from various diseases, but more plentiful than last year. *Cass*: The disease among hogs is making havoc wherever it strikes them, but is confined to localities. *Harrison*: Some cholera. *Nodaway*: Short crop, owing, in part, to cholera, but mainly to a short corn-crop last year. *Crawford*: Dying of cholera. *Henry*: Cholera, so called, has destroyed 40 per cent. of the stock-hogs; those that have recovered are doing well. *Pettis*: Will lose 20 per cent. by cholera and lung disease; hundreds are dying weekly; some farmers have lost as high as 60 in one day and night. *Caldwell*: In fine condition. *Cole*: Still dying. *Holt*: At least 20 per cent. more dying this year than last. *Randolph*: Cholera is raging fearfully in some parts; hogs are very scarce and high. *Ripley*: Died of cholera badly last year; hence, this year they are more in number and less in weight than last.

KANSAS.—*Jackson*: Scarce, but very good in size.

NEBRASKA.—*Antelope*: Three-fourths are pigs three to six months old; have old corn enough to put all into market in good shape.

FRUIT.

The hot and very dry August throughout the North and in some sections of the South occasioned extensive injury to the fruit-crop by causing premature cessation of growth and falling off. The disease described as pear-blight, twig-blight, fire-blight, &c., appears to be ex-

tending. It has reduced the pear-crop largely, and to some extent the apple-crop. In some sections it is destroying not merely the fruit but the trees. The report from Pulaski, Illinois, states: "The root-rot and fire-blight, so-called, continue to destroy our apple and pear trees to such an extent as to render orcharding a failure in all this south end of the State." Pear-trees have suffered much from "fire-blight" in Onondaga, New York; fruit-trees from "twig-blight" in Cumberland, New Jersey; and from "blight" in Randolph and Polk, Georgia, and Saint Clair, Alabama. In the county last-named many trees have been killed by the disease. The fruit-crop has been seriously curtailed in Minnesota and Nebraska, and somewhat in Iowa, by the ravages of grasshoppers. In Nebraska, Dodge County, they not only stripped fruit-trees of their leaves, but, in some localities, of their bark; in Boone they killed the young fruit-trees, and in Adams injured them 50 per cent. With these exceptions, returns, referring not to specific fruits noticed below, but to the general crop, including all kinds, are for the most part favorable. Among the localities reporting a great abundance of all kinds are Lancaster, York, and Mifflin, Pennsylvania; Carroll, Virginia; Hayne, Michigan; Clark, Wisconsin; and San Joaquin, California.

APPLES.—*Condition*: The returns from the several States for the condition of apples, September 1, give promise that, on the whole, a plentiful crop, of excellent quality, will be gathered. A few drawbacks are reported, but none of them serious, and most of them quite limited in extent. In the section north of the Potomac and east of Ohio, the large crop is being quite generally sifted by premature falling off, owing to the very dry August. Injuries by worms are noted only in Allegany, New York; Westmoreland, Virginia; and Benton, Arkansas. In Fannin, Georgia, a large crop is being ruined by a "kind of fungus" on the twigs, which causes the leaves to die and fall off, and the fruit to be specked with "bitter-rot" and fall prematurely. "Bitter-rot" is also reported in Marion, Indiana, and Hamilton, Illinois. In Box Elder and Tooele, Utah, the crop has been greatly injured by the codling-moth. With these exceptions the figures denoting reduced condition, generally indicate the percentage below average quantity on the trees, rather than injuries or defects in quality. The returns frequently, for obvious reasons, couple diminished numbers and superior size and quality together. In Dunn, Wisconsin, where the apples grown are of the crab varieties, the branches of the young trees are so burdened as to require artificial support to prevent breaking down. In Hall, Nebraska, the grasshoppers devoured one-third of the crop, yet the State averages 104. In the section above indicated as affected by drought, owing in part to causes previously reported, the condition differs widely in contiguous States. While in New Hampshire it rises to 112, it falls on the one side, in Maine, to 74, and on the other, in Vermont, to 71. Connecticut returns an average of 111, but Massachusetts 93, and New York 92. In New Jersey it rises to 103, and in Pennsylvania and Maryland to 106. In all the States south of the Potomac and the Ohio the figures fall considerably below average. Not including Louisiana, (51,) in which but few apples are grown, the range is between 62 and 91, Virginia and West Virginia being at the latter figure. Except Illinois, 88, a heavy crop is reported in the entire section bounded by the Ohio, the Missouri, and the Lakes; Ohio, 105; Michigan, 111; Wisconsin, 122; Minnesota, 106; Iowa, 121. In the remaining States west of the Mississippi the range is between 70 in Arkansas and 97 in Kansas, Missouri being 74.

MAINE.—*Waldo*: Scarce and small. *Cumberland*: Injured by drought.

VERMONT.—*Orleans*: Not enough for home use.

MASSACHUSETTS.—*Plymouth*: Very abundant, but dropping freely, owing to drought. NEW YORK.—*Montgomery*: Inferior in quality, owing to drought. *Saratoga*: Very abundant and of fine flavor. *Westchester*: Were very plenty, but are dropping off for want of rain. *Genesee*: Will be fine unless prematurely ripened by the prevailing dry weather. *Onondaga*: Young apple-trees have suffered much by "fire-blight." *Orange*: Dropping off prematurely; drought. *Sullivan*: Promise well. *Allegany*: Have never seen apples in this county wormy until this year. *Columbia*: Injured by drought.

NEW JERSEY.—*Cumberland*: Trees have suffered from twig-blight; apples are dropping off badly. *Burlington*: Falling badly. The market has been overstocked with summer varieties, causing low prices. *Mercer*: Very large product, but dropping off from drought. *Wyoming*: A fair crop, but dropping off from dry weather. *Warren*: Excellent crop in size and quality.

PENNSYLVANIA.—*Northumberland*: Very fair promise, but the severe drought is causing all varieties to fall off prematurely. *Westmoreland*: Much injured by worms. *Blair*: A large crop of exceeding fine quality. *Butler*: Plenty, but small. *McKean*: Poor, owing to drought and east winds. *Beaver*: Very plenty and good. *Bedford*: Very abundant. *Lancaster*: Falling off fast; poor prospect for winter-apples. *Warren*: The crop greatly reduced by protracted drought. *Berks*: Very plenty and cheap. *Lawrence*: Dropping prematurely in great quantities. *Lehigh*: The drought causes them to drop too early. *Washington*: A most bountiful crop; large and smooth. *Potter*: Late and small.

MARYLAND.—*Frederick*: Very abundant. *Baltimore*: Abundant, but some varieties dropping off. *Howard*: Fine crop.

VIRGINIA.—*Dimwiddie*: Hang well on the trees, and are maturing well. *King George*: A sufficient crop. *Madison*: Very heavy crop along the base of the Blue Ridge.

NORTH CAROLINA.—*Beaufort*: Large crop of superior quality. *Transylvania*: A light crop. *Onslow*: Late apples are doing well. *Hertford*: Abundant.

SOUTH CAROLINA.—*Clarendon*: A heavy crop. *Lexington*: Larger and better crop than for twenty years.

GEORGIA.—*Fannin*: Large crop, but of inferior quality. Owing to a kind of fungus on the twigs, the leaves are dying and falling from the trees, and the fruit is specked with bitter rot, and falling prematurely. *Jefferson*: A light crop.

ALABAMA.—*St. Clair*: The blight has killed many trees. *Morgan*: Abundant, but rotting.

ARKANSAS.—*Johnson*: Rotting and falling off. *Benton*: Greatly affected by worms, causing the fruit to fall off.

TENNESSEE.—*Bedford*: Superabundant; in many orchards the trees are breaking under the weight of fruit. *Wilson*: Below average in quantity, but the fruit unusually large. *Putnam*: Very fine.

WEST VIRGINIA.—Falling from the trees more than usual. *Wetzel*: Never more abundant or perfect.

KENTUCKY.—*Nicholas*: A fine and heavy crop. *Lincoln*: A little over half a crop—fair in quality. *Owsley*: Plenty, but injured by the drought.

OHIO.—*Clark*: Plenty. *Washington*: Light crop, but very plump and fair. *Preble*: Never more perfect and free from worms. *Hamilton*: Very plenty, and remarkably fair. *Delaware*: Fair fruit, but only half a crop. *Sandusky*: Very poor. *Warren*: In great abundance. *Huron*: In the northern part very plenty and nice; in the southern a failure. *Wood*: Abundant, and nice in size and quality.

MICHIGAN.—*Oakland*: The heaviest crop ever known, and shows the least effects of worms of any for ten years. *Lapeer*: A very large yield of good quality.

INDIANA.—*Ohio*: Finest crop ever known. *Franklin*: Abundant and fine; best crop in fifteen years. *Ripley*: Enormous crop; half must go for loss for want of demand or use. *Shelby*: A large crop, but falling off badly. *Whitley*: A fine crop and of good quality. *Floyd*: immense crop, selling at the distilleries at 35 cents per barrel. *Marion*: A good crop, but some complaint of bitter-rot.

ILLINOIS.—*Bureau*: More than last year, but many are scabby and gnarley. *Hamilton*: Affected with bitter-rot and falling off prematurely.

WISCONSIN.—*Dunn*: Our apples are of the crab variety, and the young trees so loaded that the branches need propping. *Brown*: The fruit in good condition, but not more than 25 per cent. of the trees that bore in 1873 are living. *Columbia*: A good crop.

MINNESOTA.—*Winona*: Trees nearly all blighted, but bearing well this year.

IOWA.—*Benton*: Double crop. *Washington*: Heavy crop.

MISSOURI.—*Clay*: Very large, owing to the small number on the trees. *Lafayette*: The few left falling off badly. *Mississippi*: Falling off badly. *Perry*: Half a crop. *Platte*: A hurricane, August 19, left scarcely an apple on the trees. *Caldwell*: Deficient in quantity; excellent in quality.

KANSAS.—*Jackson*: Good. *Nemaha*: Very fine, perfect.

NEBRASKA.—*Otoe*: Good yield. *Hall*: About one-third eaten by the grasshoppers.

OREGON.—*Grant*: Largely in excess of anything before known. *Linn*: Not more than 33 per cent. of a crop, but good in quality.

UTAH.—*Salt Lake* : The crop totally destroyed by the coddling-moth. *Box Elder* : Cut very short by the coddling-moth. *Tooele* : Plentiful but worthless, on account of the coddling-moth.

PEACHES.—*Product* : Iowa returns the product at 122; Oregon, 153; Michigan, 91; California, 90; Nebraska, 72; Maryland, 58; all of her states in which the crop is of any account report much below that figure—ranging down to 6 in Arkansas. The causes of reduction have been given in previous reports.

NEW JERSEY.—*Warren* : Abundant, but rather poor in quality owing to drought.

PENNSYLVANIA.—*Lehigh* : Do not attain full size; drought.

MARYLAND.—*Frederick* : Early varieties a failure, and late rotting on the trees. *Baltimore* : Rather inferior.

VIRGINIA.—*King and Queen* : On trees raised from the stone, a very luxuriant crop; but not a peach on grafts.

NORTH CAROLINA.—*Beaufort* : Not a full crop but very superior in quality. *Hertford* : The crop beyond the most extravagant expectations.

ALABAMA.—*Morgan* : More abundant and better quality than for years.

LOUISIANA.—*Franklin* : Rotted or fell off before ripening.

TEXAS.—*Lavaca* : A continuous shedding of the fruit. *Medina* : We had no fruit whatever from any grafted tree, they being more sensitive to the cold than seedlings.

ILLINOIS.—*Madison* : Rotting on the trees.

OREGON.—*Grant* : Largely in excess of any previous crop.

GRAPES.—*Condition* : The only States in which full condition is reported are Vermont, 100, and Oregon, 102, in both of which comparatively few grapes are grown. Extensive injuries to the vines by untimely frosts in the spring, and other causes preventing or diminishing young fruit, have been reported up to July. Since that date, as may be seen from notes below, by far the most extensive source of reduction has been rot. In Clarendon, South Carolina, while other varieties have been affected with rot, the scuppernong is better in quality than last year, though somewhat diminished in yield. But in Georgia, Bath, the scuppernong, for the first time in many years, "failed to be good." In Fannin, "grapes well cared for are unusually large and fine; those left to chance are nearly all destroyed by rot and insects." Washington, Arkansas, reports "a plenty of wild grapes on every hill side, and as good in quality as the cultivated." Redwood, Minnesota, "a good yield of wild grapes of excellent quality," and Nemaha, Kansas, "hundreds of bushels of wild grapes of good quality." The crop has been injured by "fleas" in Grundy, Tennessee, and very "much injured by an insect supposed to be the *Phylloxera*" in Grant, West Virginia. In Athens, Ohio, some vineyards have lost all from the combined attacks of wasps, grasshoppers, and rot.

Upon the whole, notwithstanding the wide complaints of rotting, and some other local drawbacks, there is a prospect of a crop not very much below average. Michigan and Iowa return a condition of 99; Minnesota, Kansas, Nebraska, and California, 98; Massachusetts, Wisconsin, and Connecticut, 97; Pennsylvania, 95; New York, 92.

NEW YORK.—*Onondaga* : Have done very well. *Wyoming* : Coming forward well.

PENNSYLVANIA.—*Westmoreland* : Abundant, but not ripening well. *Lehigh* : Do not attain full size; drought.

MARYLAND.—*Frederick* : Good.

VIRGINIA.—*Dinwiddie* : A favorable season for the crop; no rot nor blight. *King George* : Mature badly.

NORTH CAROLINA.—*Alamance* : Some have rotted. *Orange* : Some are rotting.

GEORGIA.—*Fulton* : Vineyards increasing, with good prospects for fine returns. *Richmond* : Very fine crop. *Upson* : Good.

FLORIDA.—*Jackson* : A good crop now on hand; wine-making in progress.

LOUISIANA.—*Jackson* : A very good crop.

TEXAS.—*Coryell* : A full crop, and very fine in quality. *Bandera* : Damaged 50 per cent. by drought.

ARKANSAS.—*Johnson* : Rotting and falling off.

TENNESSEE.—*Gibson*: Doing well, but some complaint of rotting. *Greene*: Rotting badly. *Putnam*: Rotted badly.

WEST VIRGINIA.—*Wetzel*: Three-fourths of a splendid crop have rotted.

OHIO.—*Clark*: Plenty. *Hocking*: Rotting and falling off. *Washington*: Rotting badly. *Ross*: Rotting badly. *Preble*: Reduced some by rot. *Wayne*: Much injured by rot. *Athens*: Have rotted badly; some vineyards have lost all by wasps, grasshoppers, and rot. *Warren*: Rotting somewhat.

MICHIGAN.—*Lapeer*: Clusters not well filled out. *Calhoun*: Suffered from mildew and rot.

INDIANA.—*Marion*: A large crop, but they have rotted badly.

ILLINOIS.—*Madison*: Mostly destroyed by rot, especially the Concord. *Perry*: Rotting. *Shelby*: Have suffered from excessive wet and heat. *Warren*: Rotted badly. *Clark*: Rotted badly.

MISSOURI.—*Buchanan*: Rotting. *Crawford*: Have nearly all rotted. *Perry*: Nearly all have rotted. *Ralls*: Damaged by rains. *Shelby*: About 50 per cent. rotted. *Butler*: Not over half a crop; blasted by the continuous rains of May and June. *Cape Girardeau*: Grew in abundance, but nearly all rotted before maturing. *Ripley*: Rotted.

KANSAS.—*Jackson*: Good. *Nemaha*: Hundreds of bushels of wild grapes of good quality are being gathered for wine and preserves. The cultivated grapes are very good.

NEBRASKA.—*Otoe*: Grand yield.

OREGON.—*Clackamas*: Heavy in quantity, but late in maturing.

BEANS.

The average condition of the entire crop falls somewhat below 100. Grasshoppers, in the section visited by them, evinced a special appetite for this crop, and in localities they completely devoured it. The reduced condition for the most part indicates shrinkage in yield, and to some extent, in mature plumpness of the bean, occasioned by drought, or by grasshoppers, rather than injuries to the quality by frosts or by rains, between ripening and curing. The only States reporting an average condition above 100 are Vermont and Mississippi, 104. The condition averages 100 in New Jersey, Maryland, Arkansas, Kentucky, and Oregon. It falls in Maine to 91; Massachusetts, 87; Connecticut, 63; New York, 88; Minnesota, 64; Iowa, 75; Nebraska, 61. In the remaining States the range is between 92 and 99.

MAINE.—*Franklin*: Injured by drought. *Piscataquis*: Not well filled; drought.

VERMONT.—*Orleans*: Nicely cured.

NEW YORK.—*Wyoming*: Good condition, but not a large yield.

PENNSYLVANIA.—*Warren*: Greatly reduced by drought.

GEORGIA.—*Baldwin*: Suffering from drought. *Upson*: Very fine.

TEXAS.—*Medina*: Injured by protracted drought. *Bexar*: Ruined by drought.

TENNESSEE.—*Monroe*: Good crop.

ILLINOIS.—*Lake*: Drowned out.

MINNESOTA.—*Redwood*: Badly damaged by grasshoppers. *Faribault*: Nearly destroyed by grasshoppers. *Meeker*: Nearly all destroyed by the grasshoppers. *Blue Earth*: Ruined by grasshoppers. *Rock*: Entire failure from grasshoppers.

IOWA.—*Humboldt*: Nearly ruined by grasshoppers.

KANSAS.—*Burton*: Destroyed by grasshoppers.

NEBRASKA.—*Knox*: Destroyed by grasshoppers. *Cuming*: Injured by grasshoppers. *Saunders*: Ruined by grasshoppers. *Antelope*: Taken clean by grasshoppers.

HOPS.

Acreage.—There has been, on the whole, a slight increase in acreage. While a decrease is indicated of 2 per cent. in Wisconsin, 5 in Ohio, and 1 in West Virginia, the increase amounts to about 5 per cent. in New York and Oregon, 8 in Michigan, and 2 in Iowa. The acreage remains unchanged in California.

Condition.—The condition is not up to average in respect to promised yield; poor quality is specified in only one return, that from Madison, New York, while that from Franklin specifies small yield but good

quality. The only cause of reduction named is drought, except that in Dodge County, Nebraska, grasshoppers destroyed the entire crop. The condition of 16 counties in New York, returning hops, averages 87; 23 in Wisconsin, 82; 9 in California, 97; 7 in West Virginia, 10 in Ohio, 10 in Michigan, and 5 in Missouri, 99; 5 in Vermont, 81; 5 in Pennsylvania, 95; 5 in Indiana, 106; 8 in Iowa and 5 in Oregon, 101.

VERMONT.—*Orleans*: Small but good in quality.

NEW YORK.—*Schoharie*: Increase in acreage, but condition below average. *Onondaga*: Will be fair; prices 25 to 30 cents. *Franklin*: Entirely a top crop. *Madison*: Not over 67 per cent. of a crop: light in weight and weak in strength, owing to drought.

WISCONSIN.—*Juneau*: Will not be more than one-third of last year's crop. *Richland*: A light crop; being picked. *Sauk*: Last year 2,500 acres; this year, 2,933; the average yield about 380 pounds of cured hops to the acre. About half are picked.

CALIFORNIA.—*San Joaquin*: Considerable attention is being paid to hops.

OREGON.—*Clackamas*: Increase in acreage and yield.

THE HAY CROP.

CLOVER.—*Condition*: The August returns reported that clover was generally harvested in superior condition in New England, in the entire section south of the Potomac, the Ohio, and the Missouri, and on the Pacific Slope. In the remaining section the crop was more or less damaged by wet weather, partly by preventing seasonable cutting, and partly by injuries between cutting and curing. The damage was greatest in the States bordering the Ohio on the north. Ohio returned an average condition of 94; Indiana, 86; Illinois, 92.

Product: The product equaled that of last year in Massachusetts and Connecticut; was less in New Hampshire by 11 per cent.; Vermont, 21; Rhode Island, 4; North Carolina, 3; Mississippi, 5; Wisconsin and Minnesota, 10. In the remaining States it exceeded that of last year; in Maine, New Jersey, and Maryland by 4 per cent.; Missouri and Nebraska, 6; Delaware and Georgia, 7; Alabama and Arkansas, 9; West Virginia, 10; Illinois, 11; Ohio and California, 12; Kansas, 15; Michigan, 16; Texas and Tennessee, 18; Kentucky, 21.

TIMOTHY.—*Condition*: The August returns indicated an average condition considerably above 100. The only States in which it fell below were, Massachusetts, 91; Rhode Island, 82; Connecticut, 90; New York, 99; New Jersey, 87; Delaware, 98; and Minnesota, 86. In the last named, grasshoppers, with dry weather, were the main causes assigned for reduction; in the others dry weather alone. Among those reporting the highest condition were Maine, Pennsylvania, Wisconsin, Iowa, and Nebraska, 105; Arkansas, Tennessee, West Virginia, and Indiana, 107; Illinois, 108; Texas, 109; California, 111; Michigan, 112. Returns for September indicate that timothy was generally harvested in excellent condition. The States in which it falls below average are, Massachusetts, 99; New Jersey, North Carolina, and California, 98, and Minnesota 93. In Connecticut and Arkansas it is average; in all the other States better than that, ranging from 101 to 112.

Product: The product of timothy is reported equal to that of last year in Maine, Vermont, and Alabama; less than last year in New Hampshire and Connecticut, 98, and Minnesota, 92; greater than last year in all the remaining States. New York and Texas return an increase of 3 per cent; New Jersey and West Virginia, 19; Pennsylvania, Kentucky, Indiana, and Illinois, 15; Maryland, 11; Virginia, Iowa, and Oregon, 10; South Carolina and Arkansas, 12; Tennessee, 9; Ohio, 13; Michigan, 22; Wisconsin, 8; Missouri, 7; Kansas, 16; Nebraska, 25; California, 6.

ALL KINDS.—*Condition and product* : The report by figures for August 1 was limited to clover and timothy, but our correspondents, in abundant notes respecting the entire crop, as made up of cultivated and indigenous grasses and forage products of all kinds, foreshadowed a generous hay-crop, above average in intrinsic quality and much the larger portion of it secured in superior condition. The principal exception to a general good condition when harvested was in the section north of the Ohio and Missouri, where excessive rains, especially in Ohio, Indiana, Illinois, and Iowa during the proper season for harvesting considerably damaged the heavy crops. A few of the local returns for August are worthy of special notice. Aroostook, Piscataquis, and York, in Maine, report that abundant crops had been secured in the best condition. In Pennsylvania, Indiana County produced more hay "than for the last ten years put together, housed in fine condition"; Elk the best crop in fifteen, and Tioga the best in twenty years, also well secured. The report from Dallas, Arkansas, stated that two crops of alfalfa had been secured and a third was growing, adding the opinion that that is "the only grass for this section." Arkansas County reported that more than two-thirds of the farmers were raising very promising crops of millet, and several other returns from Arkansas noticed the success and growing popularity of this crop. Several returns from Tennessee also indicated that the growing of millet had proved quite successful and that its culture is extending.

From West Virginia and Kentucky, and from Missouri, except Saint Charles and Moniteau, reports were uniformly favorable respecting the quantity of the crop and the condition in which it was secured. In California, Fresno reported a very large crop consisting of alfalfa and "wheat and barley hay;" Lake, that the crop of "grain-hay" was 50 per cent. above average; and Santa Clara, that three times the usual amount of hay had been secured.

The September returns report the product of all kinds of hay compared with last year. The only States which return less are New Hampshire, Vermont, Massachusetts, and Kansas, 98; Florida, 94; Louisiana, 96; Minnesota and Nebraska, 97. In the last two and Kansas, grasshoppers were the chief cause of reduction. In all the remaining States the product is greater than last year, the range of excess being from 3 to 34 per cent. Among the States producing a million tons and upwards the figures for comparative product are, in Maine and New York, 105; Pennsylvania and Ohio, 116; Illinois, 118; Michigan, 122; Wisconsin, 131; Iowa, 112; Indiana, 115. Among other States indicating a large comparative increase are, New Jersey, 113; Maryland and Georgia, 111; Virginia, 114; Alabama and Texas, 107; Arkansas, 117; Missouri, 105; Tennessee, 121; West Virginia, 124; Kentucky, 134; California, 125; Oregon, 115.

The extracts below from the September returns give various local details respecting quantity, quality, condition when harvested, and the causes affecting each.

MAINE.—*Piscataquis*: Harvested in the best condition for years. *Waldo*: Better than for many years.

NEW HAMPSHIRE.—*Cheshire*: A good crop.

VERMONT.—*Orleans*: Well secured.

NEW YORK.—*Saratoga*: Well secured. *Madison*: A good crop gathered, in fine condition. *Wyoming*: Good in quality. *Sullivan*: Not an average crop, but much superior to last year.

NEW JERSEY.—*Cumberland*: The heaviest crop for several years. *Sussex*: Though not a full crop, better and more plentiful than last year by 25 per cent. *Warren*: Well secured.

PENNSYLVANIA.—*Cambria*: Well secured. *Bearer*: Put up in good order. *Elk*: An enormous crop, harvested in good condition. *Indiana*: An immense crop, all well secured. *Sullivan*: Never more abundant.

MARYLAND.—*Baltimore*: A large crop and all kinds secured in fine condition. *Howard*: One of the best crops for years.

VIRGINIA.—*Campbell*: Excellent crop in yield and quality. *Middlesex*: Very fine crop. *Dinwiddie*: A good crop, and was harvested in better condition than I ever saw before. *Madison*: Very heavy crop; better than for many years. *Rockingham*: Fine crop in quantity and quality. *Russell*: A good crop, in good condition. *Carroll*: Very good crop. *Orange*: Shortened by a protracted drought. *Prince George*: Diminished by drought in May and June.

NORTH CAROLINA.—*Orange*: The crop of late grass is unprecedented. *Buncombe*: First-rate.

SOUTH CAROLINA.—*Newberry*: German millet yields an abundance of excellent hay. *Greenville*: Largely damaged by heavy rains.

GEORGIA.—*Catoosa*: Quality not so good, owing to showery weather; but the quantity 15 per cent. above, owing to German millet. *Elbert*: Fine season for hay. *Thomas*: Better crop than last year. *Upson*: Very fine. *Jefferson*: Very good crop. *Twiggs*: The fodder has been saved in better condition than for years.

FLORIDA.—*Gadsden*: Corn-fodder has been saved in good condition, and the crops of green pease, ground pease, and chufus promise a good yield.

ALABAMA.—*Conecuh*: As good a crop as the land can bring.

TEXAS.—*Harris*: The prairie-grass is fine, and the weather for cutting perfect. *Titus*: Never better. *Austin*: A very heavy crop. *Collin*: Prairie-hay better than for years. *Medina*: Reduced by protracted drought.

ARKANSAS.—*Arkansas*: A big crop. *Izard*: German millet almost the only kind of hay raised; was damaged in making. *Fulton*: Good; German millet extra good.

TENNESSEE.—*Blount*: Extra crop. *Greene*: German millet and all other kinds above average. *Wilson*: Large crop; more and better clover-hay saved than any previous year. *Fentress*: Enormous crop. Millet is rapidly coming into use. *Bledsoe*: Good yield of millet; hay of excellent quality.

WEST VIRGINIA.—*Grant*: Somewhat injured by rains. *Braxton*: Best crop in quantity and quality for years. *Hardy*: Extra large crop. *Mercer*: The quality above average. *Jefferson*: Better than last year. A fine crop of Hungarian and fox-tail grasses.

KENTUCKY.—*Calloway*: The best crop of all kinds ever raised. *Boyle*: Far above a general average, with fine harvest-weather. *Henry*: Unusual fall rains interfere with the saving of the millet and Hungarian crops. *Lincoln*: One of the heaviest crops in ten years. *Logan*: Saved in fine condition; selling at \$6 to \$8 per ton.

OHIO.—*Ross*: Timothy too ripe before cutting; too much rain. *Preble*: The product of all kinds fully 15 per cent. above last year. *Geauga*: The heaviest crop for twenty years. *Sandusky*: All kinds never better; worth only \$5 per ton. *Portage*: Considerably increased by second crop, the cutting of which is unusual here. *Wood*: Unusually large crop, but not good in quality.

MICHIGAN.—*Mason*: Fine. *Oakland*: The heaviest crop ever harvested—the timothy in first-rate condition; clover injured somewhat. *Menominee*: Large crop, well secured. *Alpena*: Better than ever before; will average more than two tons per acre. *Delta*: A heavy crop, well saved; the price the lowest ever known. *Lapeer*: Good in quality and well secured. *Lenawee*: Clover-hay much injured by wet weather. *Calhoun*: Injured by rains. *Kent*: Unusually heavy crop.

INDIANA.—*Decatur*: Good crop secured in excellent condition. *De Kalb*: Clover-hay badly injured. *Franklin*: A large crop well harvested. *Washington*: All well saved. *Floyd*: Sold last year for \$16 per ton; selling now for \$7.

ILLINOIS.—*Jefferson*: The product beyond all precedent. *Hamilton*: Clover injured in harvest but other hay fine. *Ogle*: Good. *Pope*: Large amount of clover not saved, owing to wet.

WISCONSIN.—*Waukesha*: The best second crop ever known. *Columbia*: Good. *Crawford*: The largest yield of all kinds for years, all well saved. *Walworth*: A first-rate crop of cultivated grasses, well secured; wild hay damaged by excessive rains.

MINNESOTA.—*Isanti*: A large reduction by the drought in July.

IOWA.—*Wayne*: Never better. *Jones*: Timothy and clover extra good; much wild grass on low lands spoiled by overflow in July. *Tama*: Damaged 25 per cent. by the flood of July 5th.

MISSOURI.—*Chariton*: Good crop, well saved. *Clay*: Good. *Nodaway*: Very large crop, well secured. *Mississippi*: Saved in good condition; yield of German millet estimated at 4 tons to the acre. *Ralls*: Saved in fine condition. *Caldwell*: More cultivated and less prairie-hay than last year. *Macon*: Fine. *Ripley*: More made than ever before; farmers giving much more attention to grass.

KANSAS.—*Jackson*: Largest yield of timothy ever harvested. *Nemaha*: Splendid crop. *Woodson*: A vast surplus of excellent quality will be put up.

NEBRASKA.—*Antelope*: Large harvest of excellent prairie-hay.

OREGON.—*Douglas*: Extra yield of timothy.

PASTURES.

Upon the whole the high condition of pastures reported for June was maintained up to the 1st of August. The condition had been reduced in Rhode Island to 45, and in New Jersey to 56, by severe drought. Owing to local droughts chiefly, it was somewhat below 100 in Massachusetts and Connecticut, in the coast States between Pennsylvania and South Carolina, and in Mississippi and Louisiana. Grasshoppers with dry weather had reduced it to 93 in Minnesota. But in Vermont the condition had risen to from 90 to 104; in Florida from 97 to 100; in Kentucky from 97 to 107; and in all the remaining States it was above 100, many of them showing a decided advance on the June returns. Among the highest were Iowa and Kansas, 106; Maine, 108; Ohio, and California, 109; Missouri, 111; Michigan, 113; Texas, 114; Arkansas and Illinois, 115; Tennessee and Oregon, 116. Several returns from Texas referred to the thrifty, fat condition of stock, consequent upon the abundant and excellent pasturage. In California the wet winter and late spring rains had contributed to make pasturage unsurpassed.

The condition of pastures is not specifically reported in the September returns; but our reporters, in notes from which brief extracts are given below, indicate severe reductions in August, from excessively hot and dry weather throughout the eastern, middle, and lake States, and Texas, and from grasshoppers in Minnesota, Kansas, and Nebraska. Little or no depreciation and in some localities an advance in high condition is indicated in the interior, and on the Pacific slope.

MAINE.—*York*: Whitening from drought. *Penobscot*: Short from dry weather. *Oxford*: Injured by a severe drought for the last six weeks. *Cumberland*: Much dried up; cattle being fed from the barn.

NEW HAMPSHIRE.—*Carroll*: Very little feed left, and cattle falling away; drought.

VERMONT.—*Franklin*: Short; product of milk and butter diminishing; drought. *Lamoille*: Feed mostly dried up, and dairy products essentially reduced; stock have to be fed largely from the barn.

MASSACHUSETTS.—*Worcester*: Scorched by drought. *Hampden*: Dried up.

NEW YORK.—*Greene*: Burned up; farmers are feeding corn-fodder. *Olsego*: Drying up. *Westchester*: All dried up. *Chautauqua*: Injured by severe drought. *Onondaga*: Crisped by the terrible drought. *Steuben*: Short, from drought. *Franklin*: Completely dried up; farmers feeding their cattle. *Fulton*: Drying up. *Erie*: Dry and bare.

PENNSYLVANIA.—*Wayne*: Dried up; cows require daily feed. *Armstrong*: Suffered much during August for want of rain. *Beaver*: Good. *Susquehanna*: Dried up, and cattle suffering for food. *Washington*: In localities almost gone, owing to drought, grasshoppers, and grub-worms. *Wyoming*: None, owing to drought; have to feed cattle.

DELAWARE.—*Sussex*: Being parched.

MARYLAND.—*Montgomery*: Seriously injured by the driest August for many years.

VIRGINIA.—*Middlesex*: Excellent.

NORTH CAROLINA.—*Transylvania*: Have improved very much during August.

GEORGIA.—*Baldwin*: Suffering for rain.

ALABAMA.—*Jackson*: Never better. *Shelby*: Fine.

TEXAS.—*Bandera*: Have the appearance of ripe grain-fields from drought. *Uvalde*: Much dried up. *Bexar*: The grass on the prairies is dried up. Stock have to go from one to eight miles for water.

ARKANSAS.—*Arkansas*: Prairie as green as in June, and breast-high. *Independence*: Cattle fat. *Izard*: Range and inside pastures very fine; domestic animals healthy and fat.

TENNESSEE.—*Trousdale*: Good. *Bledsoe*: Very fine.

KENTUCKY.—*Cumberland*: Extra fine. *Jessamine*: Blue-grass pastures better than usual. *Mason*: Unusually fine. *Owsley*: Dried up.

OHIO.—*Wayne*: The earth here is carpeted with grass. *Harrison*: Grass abundant; plenty of rain. *Richland*: Never better. *Portage*: Abundant.

MICHIGAN.—*Kalamazoo*: Quite short from drought.

INDIANA.—*Lawrence*: Excellent; stock doing well. *Warren*: Good. *Floyd*: Never better.

ILLINOIS.—*Jefferson*: Keeping green beyond all precedent. *Piatt*: Very fine. *Ogle*: Good. *Morgan*: Heavy fall feed of grass and weeds.
 WISCONSIN.—*Waukesha*: Good.
 IOWA.—*Jones*: Extra good.
 MISSOURI.—*Harrison*: Fine. *Putnam*: Abundant. *Cole*: Excellent.
 CALIFORNIA.—*Calusa*: Very abundant, and all kinds of stock doing better than in any previous year.

SORGHUM.

Returns indicate that the extending culture of sorghum in the Gulf States is being encouraged by promising results. In the entire section south of the Potomac and the Ohio the only States reporting a condition not averaging above 100 are North Carolina, 98, and West Virginia, 99. Among the highest are South Carolina, Louisiana, and Tennessee, 104; Georgia, 105; Alabama and Kentucky, 106. In the Ohio Valley and west of the Mississippi the range is from 90 to 99.

VIRGINIA.—*Madison*: The largest crop ever grown. *Russell*: Very good.

GEORGIA.—*Troup*: Good. *Fulton*: More planted than ever before, and very fine. *Upson*: Very fine.

ALABAMA.—*Bullock*: Fine. *Conceh*: Prospect of a No. 1 crop. *Crenshaw*: Very good. *Lauderdale*: Good, and becoming a very important crop in this county.

MISSISSIPPI.—*Choctaw*: Much better than last year. *Perry*: Planted for the first time and successful. *Lincoln*: Favorable as could be desired.

TEXAS.—*Titus*: Better than for years. *Bastrop*: The yield has been as great as 120 gallons of sirup per acre; 80 gallons is the average. This promises to be a profitable industry here, and I think many will grow sorghum instead of cotton another year. *Upshur*: Doing well; enough to supply the county with sirup. *Austin*: Turning out 100 to 125 gallons of sirup per acre. *Waller*: Being tried by many farmers. *Rusk*: The sorghum-mills are all busy. *Medina*: Reduced by protracted drought.

ARKANSAS.—*Fulton*: Many crops damaged by black rust.

TENNESSEE.—*Monroe*: Abundant crop made. *Greene*: Heavy growth. *Wilson*: A full crop and a splendid yield.

ILLINOIS.—*Hardin*: Good. *Carroll*: Best of weather for ripening.

MISSOURI.—*Johnson*: The prospect for a crop grows less and less.

NEBRASKA.—*Saunders*: Largely ruined by grasshoppers.

RICE.

In the section where rice is grown occasional references to the crop by our correspondents indicate a promising condition. In Georgia the inland crop in Liberty County is promising, and in McIntosh, in which rice is a staple product, the promise is reported to be better than for the last ten or twelve years. Our reporter in Santa Rosa, Florida, also states that in that section, in which rice is a principal crop, a very fine and remunerative yield is promised.

SOUTH CAROLINA.—*Barnwell*: Shortened by drought in the western part of the county.

GEORGIA.—*McIntosh*: Rice is one of our principal crops; very fine yield; best for ten or twelve years. *Liberty*: Prospects of a good crop.

FLORIDA.—*Santa Rosa*: Rice our principal crop; it looks very well. *Marion*: Silver-hull from the Department a failure.

INSECT-INJURIES.

With the exception of the grasshopper raid west of the Mississippi and the cotton caterpillars in the South, the operations of the farmers' insect enemies have been on a comparatively small scale.

WHEAT-INSECTS.—Of insects especially infecting the wheat-crop, the Hessian fly (*Cecidomyia destructor*) is reported in Carroll, Maryland; Russell, Virginia; Carroll, Georgia; Lake Michigan; Fond du Lac and Winebago, Wisconsin; Jackson, Iowa; and Greenwood, Kansas. The midge,

(*Diplosis [cecidomyia] triticeis*), sometimes improperly called the red weevil, did some damage in the spring-wheat in Grand Isle and Orleans, Vermont. It is also noted in Shiawassee, Michigan; Boone, Wisconsin; and DeKalb and Wabash, Indiana. In the last-named county half the wheat-crop was destroyed. Several new wheat-insects are reported. One in Blair, Pennsylvania, attacked the straw when the wheat was a few inches above ground. Another in Outagamie, Wisconsin, working at the root of the plant, caused the straw to fall down. A small white worm is noted as injurious in Grundy, Iowa, and a green worm in Saline, Kansas, injured winter-wheat. Unknown insects were also troublesome to wheat-growers in Waseca, Minnesota, and Hardin, Iowa.

THE COTTON-CATERPILLAR (*Anomis [Aletia] xylinæ*), during July made some harmless incipient demonstrations, which unhappily were followed in August by severe injuries at numerous points in the cotton-belt. Its operations appear to have been confined mostly to the southern counties, as North Carolina and Tennessee report no injuries, and South Carolina and Arkansas in but one county each, and that not very serious. In Beaufort, South Carolina, a few were noted in sea-island cotton, growing on the mainland. Georgia reports them in four counties, all lying between the Chattahoochee and Flint Rivers, viz: Muscogee, Terrell, Harris, and Stewart; in the last named, the insect was noticed only in late plantings in fresh lowland soils. They were more or less injurious in Jackson, Columbus, and Jefferson, Florida, and in Marengo, Coffee, Clarke, Bullock, Lauderdale, Crenshaw, Monroe, Lowndes, and Hale, Alabama; in Dallas they destroyed 40 per cent., and in Greene 50 per cent. of the crop; in Conecuh they threatened to close it out entirely; in Perry they devoured rotten apples, cider-pumice, &c. Mississippi reports them in Rankin, Kemper, Adams, Lowndes, Covington, Jasper, Clarke, and Marion; Louisiana, in Caddo and Concordia; Texas, in Polk, Waller, Matagorda, Washington, Austin, Bastrop, Lavaca, Victoria, Colorado, and Marion; Arkansas in Nevada. The following letter from M. F. Hartman, secretary of the Agricultural Society of Austin County, Texas, gives a graphic view of these pests in that county, especially illustrating their enormous power of propagation:

As predicted in my last, the cotton-worm reached us last week, and devoured every particle that was eatable, leaves, blossoms, and small bolls. Never since my knowledge have these worms appeared in such a multitude. After having laid waste our fields, they thronged and blackened our lanes, roads, and highways; they penetrated lawns, yards, and even dwelling-houses, lying in the pathway, requiring the constant use of the broom to repel our loathsome guests. Hens, turkeys, and geese had a feast and grew fat. In this portion of our county the loss was not so severe, as the gathering had already begun and most of the bolls were fully grown, but the southern part, bordering on an extensive prairie that reaches to the Gulf of Mexico, two hundred miles distant, was attacked four weeks earlier, and the loss is a very severe one.

COTTON-LICE, (*Aphis*, sp.).—Minute bugs or lice, resembling rust clustering round the cotton-stalk and on the under side of the leaves, caused the plant to shed and turn yellow in Covington, Alabama; Red River, Panola, Wood, and Titus, Texas; and in Bell and Clarke, Arkansas. This insect does not appear to have wrought a very serious amount of injury on the whole.

CHINCH-BUGS (*Micropus [Rhyparochromus] leucopterus*) showed themselves during August on the Atlantic slope, having been noted at several points in the Mississippi valley during July. Davidson and Warren, North Carolina, were troubled by them. In the latter strong lye of wood-ashes applied to the corn-stalk disposed of the pests. It was found necessary, however, not to allow the lye to come in contact with the corn-bud, as it would probably destroy it. They were de-

destructive to wheat in Hunt, Texas. In Boone and Winnebago, Illinois, they ruined spring-wheat and barley and threatened the corn. In Dunn, Wisconsin, it was noticed that they did not touch the Odessa wheat when any other variety was growing near it. They were destructive to spring-wheat also in Washington, Brown, Columbia, Fond du Lac, Green, Monroe, Calumet, Grant, Jackson, Jefferson, Juneau, La Crosse, Portage, Pierce, Sauk, Vernon, Walworth, Waukesha, and Winnebago. In some cases, after destroying wheat, they attacked the corn, and where the grain was too hard for their consumption they stripped the blades. They are also reported in Jackson, Iowa; Atchison, Missouri; Nemaha, Neosho, El Dorado, Washington, and Smith, Kansas; and in Gage, Saunders, and Richardson, Nebraska.

BOLL-WORMS (*Heliothis armigera*) are reported in Lee, Mississippi, and in Nacogdoches, Smith, Hunt, Rusk, and Lamar, Texas.

GRASSHOPPERS.—Insects bearing this popular designation are reported in the Middle, Southern, and Northwestern States. In the latter case there is no difficulty in identifying them with the dreaded *Caloptenus spretus*, which, it is believed, confines its visitation to the regions west of the seventeenth meridian. An examination of the map shows that all the counties of Minnesota, Iowa, and Missouri reporting the ravages of this insect lie wholly or partly west of that meridian. In Minnesota they were more or less destructive in McLeod, Yellow Medicine, Faribault, Redwood, Meeker, Nicollet, Blue Earth, Nobles, Stevens, Stearns, Todd, Rock, Jackson, Pope, Renville, Chippewa, Swift, and Kandiyohi; in Iowa, in Crawford, Clay, Harrison, Calhoun, Humboldt, Cherokee, Sioux, Greene, Montgomery, Audubon, Guthrie, Pottawattamie, Pocahontas, and Sac; Missouri reports them only in Atchison. Kansas had a very severe visitation in some counties, viz: Mitchell, McPherson, Pawnee, Washington, Ellis, Reno, Norton, Graham, Rice, and Republic. Nebraska, however, received the brunt of the destructive invasion, reporting them in Furnas, Knox, Osage, Cuming, Dodge, Webster, Franklin, Saunders, Seward, Thayer, Boone, Lancaster, Platte, Hall, Wayne, Merrick, Antelope, and Richardson. A detailed summary of the injuries inflicted will be found in our "extracts from correspondence." The farmers of this region, especially those west of the Missouri, have suffered an incalculable disaster, and great suffering must be the result. Our correspondent in Osage, Nebraska, after carefully noting the incubation of these insects in a field of oat-stubble, estimates the average number of deposits at fifteen per square inch, each deposit averaging thirty eggs. This gives the frightful aggregate of 2,826,688,000 eggs per acre. This is doubtless a greatly exaggerated estimate, but after every deduction enough remains for serious alarm. It is not to be wondered at that some of our correspondents in this region call earnestly for the legal protection of insectivorous birds.

The *C. femur rubrum* did some damage in Westmoreland and Washington, Pennsylvania, to corn and grass crops. In Franklin, Virginia, and in Logan, Kentucky, they imitated one of the vices of civilization by chewing tobacco; in Callaway they nearly destroyed the turnip-crop. In Athens, Ohio, they devoured grapes. In Campbell, Tennessee, they were unusually abundant and destructive to corn.

In the Southern States an insect called the grasshopper, but which cannot be identified by any specific name from the description, is reported in several counties. Our correspondent in Carroll, Georgia, says:

Grasshoppers of a very distinctive kind have made their appearance here; some green, some yellow, some striped. They are of a kind never seen here before, and

great fears are felt on their account. Corn in some fields is already stripped of its blades, and cotton-fields of the leaves; they appear to be moving in a northwest direction.

This may be *Caloptenus differentialis*, a specimen of which has been received from Georgia. Grasshoppers of this or some other species unidentified destroyed various crops in Bartow, Fayette, Forsyth, and Floyd, Georgia, and in Etowah, Alabama.

COLORADO BEETLES, (*Doryphera decemlineata*.)—This pest has been far less injurious to the potato-crop than last year. In the West their visits were fortunately like angels' visits—few and far between. In the East they were quite generally diffused, but, except in New York, comparatively harmless. They are reported in Chautauqua, Delaware, Onandaga, Orange, Broome, Schuyler, Sullivan, and Suffolk, New York; Cumberland, New Jersey; Chester and Lehigh, Pennsylvania; Prince George's, Maryland; King and Queen and Richmond, Virginia; Perry, Ohio; Hayne, Michigan; Elkhart, Indiana; Johnson, Illinois; Brown, Wisconsin; Steele, Minnesota; Howard, Iowa; Antelope, Nebraska.

ARMY WORM, (*Leucania unifructa* [?])—This insect is reported in Linn, Oregon, as eating potato-vines and then destroying the tubers. An insect under this name, but not identified, injured corn in East Feliciana, Louisiana.

MISCELLANEOUS.—Grub-worms (*Lachnosterna*, sp.) injured pastures in Washington, Pennsylvania. In Spartanburgh, South Carolina, the cabbage-crop was destroyed by a green worm, (*Pieris rapæ* [?]) In Franklin, Virginia, tobacco was punctured in the stalk by a worm that devoured the pith, while in Logan, Kentucky, the flea-bugs (*Haltica* [?]) destroyed the plants. Wire-worms (*Elater*, sp.) injured corn in Lawrence, Indiana. A prolific insect called cut-worm, very different from the ordinary cut-worm, destroyed root-crops, vegetables, and fruit in Benton, Oregon. Several counties report new insects injuring corn. The leaf-hopper (*Erythroneura* [?]) injured grapes in Westmoreland, Pennsylvania, and in Grant, West Virginia, there is a panic about the dreaded *Phylloxera*.

Table showing the condition of the crops, &c., on the 1st day of September, 1876.

States.	CORN.	WHEAT.	RYE.	OATS.	BARLEY.	BUCK- WHEAT.	POTATOES, (<i>Solanum tuberosum</i>).	POTATOES, (<i>Rubras ed- ulis</i>) SWEET.	TOBACCO.	COTTON.	HAY.		
	Average condi- tion Septem- ber 1.	Average condi- tion when harvested.	Average condi- tion when harvested.	Average condi- tion when harvested.	Average condi- tion when harvested.	Average condi- tion Septem- ber 1.	Average condi- tion Septem- ber 1.	Average condi- tion Septem- ber 1.	Average condi- tion Septem- ber 1.	Average condi- tion Septem- ber 1.	Product of tim- othy com- pared with last year.	Average condi- tion of tim- othy when harvested.	Product of hay of all kinds compared with last year.
Maine	94	97	97	101	96	98	92	92	.....	.....	103	106	105
New Hampshire.....	97	95	95	96	97	92	92	92	.....	.....	98	101	98
Vermont	93	88	103	98	101	85	91	91	.....	.....	100	106	98
Massachusetts.....	98	100	103	100	96	80	65	.....	103	.....	102	99	105
Connecticut.....	103	100	97	92	92	90	63	.....	102	.....	103	101	103
New York	90	88	93	89	89	72	57	.....	95	.....	103	101	105
New Jersey	89	105	97	88	77	45	45	94	.....	.....	119	98	113
Pennsylvania	98	96	98	94	94	86	74	95	101	.....	115	103	116
Delaware.....	90	100	100	100	.....	.....	80	95	.....	.....	100	100	100
Maryland	104	102	98	99	.....	.....	89	100	72	.....	111	101	111
Virginia.....	103	102	99	93	.....	.....	86	97	65	106	110	105	114
North Carolina.....	94	83	91	86	103	86	101	98	69	.....	102	98	104
South Carolina.....	99	79	99	108	103	99	98	101	.....	.....	112	102	103
Georgia	111	66	97	105	192	99	98	98	.....	.....	106	106	111
Florida	97	.....	100	105	.....	.....	87	93	100	83	.....	103	94
Alabama	106	61	98	88	101	100	105	108	84	83	.....	107	107
Mississippi.....	95	79	90	94	.....	.....	106	107	84	87	100	.....	106
Louisiana	91	.....	97	97	.....	.....	93	97	101	.....	.....	.....	96
Texas	118	79	87	92	94	78	104	101	101	87	103	108	107
Arkansas.....	.....	66	75	52	75	95	104	108	91	97	112	100	117
Tennessee.....	112	89	94	79	89	92	104	104	80	119	109	102	121
West Virginia.....	107	103	100	98	.....	100	84	98	103	.....	119	112	124
Kentucky	110	96	100	85	99	99	101	107	77	.....	115	106	134
Ohio.....	104	89	93	84	88	93	84	93	97	.....	113	103	116
Michigan.....	98	87	93	100	95	86	64	.....	.....	.....	122	102	122
Indiana.....	97	86	93	73	89	98	83	95	97	.....	115	102	115
Illinois.....	87	74	85	56	57	86	92	94	92	.....	115	104	118
Wisconsin.....	111	58	92	86	88	99	94	.....	98	.....	108	103	131
Minnesota.....	96	72	80	78	71	73	81	.....	.....	.....	92	93	97
Iowa.....	89	57	87	72	79	87	97	99	.....	.....	110	101	112
Missouri.....	92	92	94	59	93	93	95	96	87	84	107	102	105
Kansas.....	106	91	93	36	91	87	93	95	97	.....	116	101	98
Nebraska.....	97	80	101	54	93	60	86	91	.....	.....	125	105	97
California.....	97	80	97	90	98	.....	96	96	.....	.....	106	106	98
Oregon.....	105	86	97	93	92	91	96	.....	90	.....	110	101	115

Table showing the condition of the crops, &c., on the 1st day of September, 1876—Continued.

States.	BEANS.	SORGHUM.	SUGAR-CANE. (not sorghum)	HOFS.		STOCK-HOGS.		WOOL.	APPLES.	PEACHES.	GRAPES.
	Average condition Septem-ber 1.	Average condition Septem-ber 1.	Average condition Septem-ber 1.	Average compared with last year.	Average condition Septem-ber 1.	Number for fattening compared with last year.	Average condition as to weight and size.	Weight of fleece compared with average clip.			
Maine.....	91	.....	.....	94	78	103	100	74	.....	.....	88
New Hampshire.....	92	.....	.....	100	97	103	100	112	.....	.....	94
Vermont.....	104	.....	.....	92	81	104	103	71	.....	Product compared with an average.	100
Massachusetts.....	87	.....	.....	.....	.....	94	98	103	.....	.....	97
Connecticut.....	63	.....	.....	100	100	.....	.....	101	.....	.....	97
New York.....	88	.....	.....	105	87	97	99	92	.....	.....	92
New Jersey.....	100	.....	.....	.....	.....	101	100	100	.....	.....	86
Pennsylvania.....	92	104	.....	95	95	99	100	100	.....	.....	85
Maryland.....	100	.....	.....	110	100	103	104	100	.....	.....	95
Virginia.....	94	103	.....	91	85	103	101	98	.....	.....	94
North Carolina.....	98	.....	.....	.....	.....	100	101	101	.....	.....	87
South Carolina.....	92	.....	.....	101	100	106	100	101	.....	.....	92
Georgia.....	104	105	.....	101	100	105	102	101	.....	.....	90
Florida.....	96	.....	.....	.....	.....	96	94	98	.....	.....	79
Alabama.....	99	106	114	101	101	113	105	101	.....	.....	91
Mississippi.....	100	104	107	.....	.....	149	114	102	.....	.....	84
Louisiana.....	100	111	.....	.....	.....	107	106	101	.....	.....	73
Texas.....	99	104	107	.....	.....	103	102	102	.....	.....	89
Arkansas.....	100	101	110	.....	.....	119	108	100	.....	.....	82
Tennessee.....	99	104	.....	.....	.....	109	107	102	.....	.....	74
West Virginia.....	97	99	.....	99	99	101	100	102	.....	.....	86
Kentucky.....	100	106	.....	.....	.....	88	98	97	.....	.....	93
Ohio.....	94	99	.....	95	99	95	98	97	.....	.....	90
Michigan.....	98	99	.....	99	99	103	101	103	.....	.....	99
Indiana.....	97	97	.....	99	106	89	96	99	.....	.....	84
Illinois.....	92	93	.....	.....	.....	88	97	100	.....	.....	78
Wisconsin.....	97	105	.....	98	82	99	96	100	.....	.....	97
Minnesota.....	94	92	.....	102	101	103	96	100	.....	.....	98
Iowa.....	75	90	.....	102	101	102	97	100	.....	.....	98
Missouri.....	93	94	.....	103	99	102	97	102	.....	.....	99
Kansas.....	92	.....	.....	.....	.....	132	99	100	.....	.....	75
Nebraska.....	61	95	.....	103	99	99	99	100	.....	.....	98
California.....	96	94	.....	.....	.....	129	112	100	.....	.....	98
Oregon.....	100	.....	.....	100	97	118	97	99	.....	.....	98
				105	101	96	102	103	.....	.....	102

Table showing the condition of the crops, &c., on the first day of August, 1876.

States.	CORN.		SPRING- WHEAT.		SPRING- RYE.		OATS.		BARLEY.		BUCKWHEAT.		POTATOES, (<i>Solanum tuberosum</i>).		POTATOES, (<i>Adiantum edulis</i> , SWEET).		TOBACCO.	
	Average condi- tion August 1.	Average condi- tion August 1.	Average condi- tion August 1.	Average condi- tion August 1.	Average condi- tion August 1.	Average condi- tion August 1.	Average condi- tion August 1.	Average condi- tion August 1.	Average condi- tion August 1.	Average com- pared with last year.	Average condi- tion August 1.	Average condi- tion August 1.	Average condi- tion August 1.	Average condi- tion August 1.	Average condi- tion August 1.	Average condi- tion August 1.	Average condi- tion August 1.	Average condi- tion August 1.
Maine.....	109	102	104	103	103	102	100	100	103	103	95	95	100	100	103	95	100	100
New Hampshire.....	104	101	101	101	102	102	105	103	103	105	99	99	100	100	103	95	100	100
Vermont.....	103	98	99	101	101	101	105	100	101	105	98	98	100	100	103	95	100	100
Massachusetts.....	100	100	99	102	102	92	105	100	92	105	42	42	100	100	103	95	100	100
Rhode Island.....	85	100	100	80	87	85	93	90	82	93	90	90	100	100	103	95	100	100
Connecticut.....	101	100	100	87	87	85	93	90	82	93	90	90	100	100	103	95	100	100
New York.....	105	96	97	88	94	94	99	97	97	70	85	88	100	100	103	95	100	100
New Jersey.....	76	100	98	102	102	97	100	100	97	97	94	93	100	100	103	95	100	100
Pennsylvania.....	100	99	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Delaware.....	99	100	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Maryland.....	99	100	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Virginia.....	94	100	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
North Carolina.....	90	100	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
South Carolina.....	93	100	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Georgia.....	109	100	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Florida.....	98	100	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Alabama.....	108	100	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Mississippi.....	96	100	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Louisiana.....	82	100	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Texas.....	127	100	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Arkansas.....	110	100	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Tennessee.....	103	100	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
West Virginia.....	101	100	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Kentucky.....	102	100	99	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Ohio.....	101	100	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Michigan.....	89	100	102	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Indiana.....	86	100	102	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Illinois.....	84	100	102	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Wisconsin.....	101	100	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Minnesota.....	96	100	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Iowa.....	87	100	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Missouri.....	88	100	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Kansas.....	104	100	98	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
Nebraska.....	114	100	99	102	102	102	100	100	97	100	100	106	100	100	103	95	100	100
California.....	92	101	99	104	104	104	102	103	99	103	98	98	101	101	100	96	100	100
Oregon.....	100	98	102	104	104	104	102	103	99	103	103	103	92	92	92	96	96	96

EXTRACTS FROM CORRESPONDENCE.

GRASSHOPPERS.—*Georgia*—*Bartow*, August 1: Within the past week grasshoppers have made their appearance in alarming numbers in some localities, and are doing considerable damage. One corn-field of twelve acres has not a blade of fodder left on it, and many of the young ears are destroyed. This has all been done this week. *Carroll*: A very destructive kind, never before seen here, have made their appearance. Some are green, some yellow, and some striped. Some corn-fields are already stripped of their blades, and some cotton-fields of their leaves. All appear to be moving in a northwest direction. *Cobb*: It looks as if the grasshoppers would give us a great deal of trouble. They are very numerous in places, and are devastating all pasturage. On some plantations they have commenced their ravages on cotton and corn. They are supposed to be the same species that ravaged the Western States a year or two ago. The farmers are killing them in great quantities, but it does little good. *Floyd*: Have made their appearance in many localities. They are very numerous, and probably will do a great deal of mischief. They have thus far confined their depredations principally to the clover and stubble fields, though they have damaged the crops of cotton and corn in some cases. *Fayette*: Are doing some damage to crops in places. *Fulton*: Made their appearance on the first day of July. They caused great alarm, but are doing little damage. They are migrating southward. *Henry*: Have made their appearance, but as they seem to operate on the stubble-lands, they have not done much damage as yet. *Walton*: Are doing damage in some localities. *Wilkes*: Appearing in quantities in some places. No serious injury.

Tennessee.—*Lincoln*: Are numerous. They are now destroying our clover-fields and injuring other crops.

Minnesota.—*Jackson*: Are here yet; it is a hard matter to estimate the damage done by them. *Meeker*: Will injure the wheat in a few places. *Nicollet*: Are destroying the crops and depositing their eggs. *Nobles*: Came upon us just as the earliest grains were ready to harvest. Wheat, corn, and timothy are very badly damaged, and other crops totally destroyed. They have laid eggs for a crop next year. *Pope*: The prospect of uncommonly good crops was very fine until about two weeks ago, when the grasshoppers came. Though they did incalculable injury, yet they did not stay long enough to effect a total destruction of crops. The air was filled with the pest, clouding the sun. They did not seem to design utter destruction of vegetation, but rather to leave their progeny. Eggs were laid all over the region. This work done, they rose on favoring winds and went southeast. Their stay on an average was about one week—in some places, only four days; in others, ten. *Redwood*: Damaged all the crops. The vines of beans and potatoes have been almost wholly eaten up, and the foliage of fruit and certain forest-trees almost wholly stripped off. *Sibley*: In eight townships the crops have suffered severely from grasshoppers. *Stearns*: The advance guard came on the 22d of July; the main army appeared the next day about 11 a. m., and by 4 p. m. every bush, flower, tree, shrub, fence, and field was literally covered with them. They are still with us, and are depositing their eggs. *Stevens*: There would have been a full average of all crops, and perhaps more, had not the grasshoppers visited this county. *Todd*: The grasshoppers struck us the 19th of July, and have

destroyed at least 67 per cent. of the crops of this county. As near as I can find out, the column is about seventeen miles wide. They came in from the west by north. One of the finest crops we have had for ten or twelve years is destroyed. There is barely enough left to pay for reaping. Yesterday I cut barley that should have yielded fifty-eight bushels per acre, and I will scarcely get five. The heads are cut off and lying on the ground. *Watowan*: Have destroyed the wheat-crops of the county. *Yellow Medicine*: In the counties Renville, Chippewa, and Swift, and parts of Kandiyohi and Yellow Medicine, oats and barley are a complete failure, on account of the grasshoppers. *Blue Earth*: The western towns are alive with grasshoppers, but they have come rather late to seriously injure wheat or oats.

Iowa.—*Clay*: The total failure of some crops, and the partial failure of others, is owing to the grasshoppers. Thousands of acres of grain and vegetables have been destroyed. They will be the cause of driving out many settlers. *O'Brien*: Came in immense swarms on the 27th of July. The destruction has already been very great, and they are still here. *Sioux*: The grasshoppers came down last week; corn is half destroyed, and unless they leave soon will be a total failure. *Woodbury*: The grasshoppers have pretty generally destroyed corn throughout the Territory of Dakota. They have done some damage to the crop in the northwestern counties of this State, but have not visited this county.

Colorado.—*Weld*: Made their appearance August 1. One day and night served to strip corn, gardens, late oats, and buckwheat. To-day (August 2) they have nearly all gone from here to the southeast. Corn being generally backward will be a total loss. *Park*: The prospect is that we shall not be troubled with grasshoppers.

Montana.—*Choteau*: Have destroyed almost the entire grain-crop. All the wheat is gone. The stock-range has been also eaten to a great extent; many spots are entirely bare. *Jefferson*: The decrease in crops arises from the ravages of grasshoppers. They have all gone southwest.

Dakota.—*Buffalo*: The entire corn-crop has been eaten by the grasshoppers. Wheat and oats, owing to the drought, ripened early, and were harvested in time to escape them. *Clay*: Have destroyed nearly all the corn, and about half the wheat and oats. They are now depositing eggs. It is the worst grasshopper raid ever known. *Hanson*: We are again visited by the everlasting grasshopper. They have been with us for the last four days, and have left nothing of corn and buckwheat but the naked stalks. Oats are badly damaged; wheat and barley were nearly harvested before they came, and potatoes and sorghum were slighted by them; but they went through the gardens like a whirlwind. *Minnehaha*: Have made their appearance slightly, and have damaged some fields. *Richland*: Are now upon us. They came yesterday, August 1; a few days late. Gardens are all swept clean; not very much damage done to grain. *Stutsman*: Did but little damage except to oats, which they nearly destroyed. There are none here at present.

New Mexico.—*San Miguel*: In the spring the grasshoppers did a great deal of damage to small grain in parts of the county. *Taos*: The grasshoppers continue their work of destruction in this valley. They have done great damage to the crops, but corn is doing well, as they have not touched it in the whole county.

Pennsylvania.—*Westmoreland*, September 1: Did some injury to corn. *Washington*: Have injured pastures.

Virginia.—*Franklin*: Still damaging the tobacco.

✓ *Georgia*.—*Bartow* : Killing out some clover-fields and doing some damage to corn and cotton. *Forsyth* : Have appeared on some farms in considerable quantities, and are destroying some fodder, &c. *Floyd* : Have been destructive in some localities to both cotton and corn, and are still devastating entire fields.

Alabama.—*Etowah* : Have devoured clover-crops in several localities.

Tennessee.—*Campbell* : More abundant than ever known; hatched out about the 20th of June; now from 1 to $1\frac{1}{2}$ inches long; have begun to eat the corn-blades.

Kentucky.—*Calloway* : The grasshoppers and bugs have nearly destroyed our turnip-crop. *Logan* : Devoured much of the tobacco as soon as set out.

Ohio.—*Athens* : Injured grasses.

Minnesota.—*McLeod* : Came from the northeast about the middle of July, and spread nearly over the whole county. Have injured oats, barley, and late corn considerably and wheat to some extent, and have deposited many eggs. Some are reported as hatching, and others as being destroyed by a worm or insect; but millions apparently will be left to hatch next spring. *Yellow Medicine* : Grasshoppers and dry weather have nearly ruined the corn-crop and taken nearly all the oats. Half of the State is covered with grasshoppers. *Redwood* : Grasshoppers and drought have destroyed the crops this year more than ever before. *Swift* : Have done a great deal of damage. They commenced depredations about the 5th of July; there have been three or four swarms. They are now mostly gone, but have left their eggs in great numbers. *Faribault* : Injured corn 10 per cent., potatoes 50 per cent., and nearly destroyed beans. About the 15th of August they lit down on us from the northwest in countless numbers. They were about eight days in passing over the county and seeding it with eggs to such an extent as to destroy all hopes of crops for the coming year. *Meeker* : Destroyed nearly all the beans. *Nicollet* : Came with the wind from the north and west and went south and west. Of cereals, they cut the oats most; destroyed much of the corn and potatoes and garden-stuff. They have been depositing their eggs for the last two months. *Brown* : Reduced corn, wheat, and rye to 25; oats, barley, and buckwheat to 10. *Blue Earth* : Injured the corn somewhat and ruined beans. The county is literally filled with their eggs. Some of the eggs are being eaten by a small worm or maggot, and some by a small red bug. *Nobles* : A small amount of corn and wheat escaped the grasshoppers; other crops are almost a total loss. *Stevens* : Have cut down our crops fearfully within the past month. *Todd* : Are all over the county; there is scarcely a foot of prairie or timber land on which eggs cannot be found. *Stearns* : Overrun the county and deposited millions of eggs. *Rock* : Everything was favorable for excessive crops when the grasshoppers came. They reduced wheat 50 per cent.; corn and oats, 67; potatoes, 75, and ruined beans.

Iowa.—*Crawford* : Injured corn 33 per cent. *Clay* : Have nearly ruined our crops. *Harrison* : Made their appearance on the 17th of August; reduced an extra corn-crop to an average; destroyed buckwheat and gardens, are injuring fruit, and depositing their eggs over the whole county. *Humboldt* : Have injured corn and nearly ruined buckwheat and beans. *Calhoun* : Have trimmed around corn-fields and so injured buckwheat that it will not be cut. *Cherokee* : Came with a north wind, on the 6th of August, staid two weeks, and have deposited eggs to some extent. They damaged wheat slightly and a very heavy corn-crop at least 25 per cent. *Sioux* : Reduced corn to 40; wheat and barley to 70; oats to 80, and potatoes to 10. *Greene* : Swarm of grass-

hoppers are destroying the county. *Montgomery* : Came August 25. Have done no injury as yet, except in a few gardens. They seem uneasy as if they desired to leave. The wind has only been favorable for them one day since their arrival. *Audubon* : Came in clouds on the 24th of August; are doing some damage on the corn and filling the ground with eggs. *Guthrie* : Coming on us during the last week by millions. Looks as if they intended to stay with us, and if they do our crops will suffer greatly. *Pottawattamie* : Made their appearance in strong force on the 23d of August. Have done considerable damage and are laying eggs in large quantities. *Pocahontas* : Have come and gone again without doing much damage except to gardens. *Sac* : The red-legged grasshoppers came about the 15th of August in such numbers as to materially injure our growing crops.

MISSOURI.—*Atchison* : Are coming down upon us to-day in great numbers.

Kansas.—*Mitchell* : Came from the north, the wind being from that direction, August 23. Began to come down at 9 in the morning, and by night the ground was literally covered with them. They commence to go into the crops as the sun goes down, on the south and west sides of the field. They are eating the blades off the corn, which is loaded with them, and the leaves off the trees. Early corn is now quite hard, and will not be seriously injured. *Pawnee* : Made their appearance August 24, coming from the northwest. Most of them passed over, but a few alighted, owing to the changing of the wind to the south. Corn is too far advanced to be injured, and they are not doing much harm except to gardens. *Washington* : Visited us August 24, at 11 o'clock in the morning, coming from the northwest. So far they have alighted on about half of the county. They are stripping the blades from the corn, but appear to pay more attention to the process of incubation than feeding. The prevalence of a south wind has kept them here until to-day, (August 31.) The north wind is now blowing, and they are filling the air by the million, passing rapidly to the northwest. They have deposited no eggs, and done little damage. *Ellis* : A visitation from grasshoppers last week ruined the late corn, and injured all somewhat. *Reno* : Commenced to alight August 31, at 11 in the morning, and are eating everything green. At 2 p. m. to-day, September 1, many of them flew away. They have almost ruined the late crops, especially corn. *Norton* : Have ruined the corn-crops. *Barton* : Appeared August 24 from the north, in vast swarms, and have destroyed all late corn and potatoes, beans, turnips, &c., and the wheat that was up. To-day, August 31, with a strong north wind, they are going south. They have made no deposit of eggs. *Graham* : Descended in clouds, and remained five days, destroying our corn, buckwheat, turnips, and gardens. *Rice* : Have returned, for the last week, in as great numbers as two years ago. The corn, except the late sod corn, which they have riddled, was out of their way. They have mostly left. *Republic* : Filled the air, August 24, when corn-fields were ravaged, and gardens disappeared in an afternoon. We have the assurance that we shall raise our own grasshoppers next year, for initiatory steps are being taken to give us a large supply. *Butler* : On the last day of August, I was in Wichita, Sedgwick County. About 4 o'clock p. m., a very large column of grasshoppers passed over. In their flight they made a noise like the rattling of a train of cars. I do not know how far the column extended west, but it extended more than twelve miles east of Wichita. Their flight was toward the south. Although the main part passed over, enough stragglers were left in the valley of the Arkansas to eat every vestige of

green wheat as fast as it came out of the ground. Some few appeared as far east as El Dorado, but no damage worthy of mention has yet been done in Butler County.

Nebraska.—*York* : The grasshoppers have called on us again. They came down August 10 from the northeast and staid two weeks to a day. August 24 they left, going southeast. They have eaten almost everything green, destroying all garden vegetables and taking the leaves off the trees. The fruit-trees, such as apple, cherry, and plum, are leafing and blossoming again. The plum-trees have ripe fruit and blossoms, which is something I never heard of before. *Furnas* : Came down in dense clouds from the northeast, so thick as to darken the sun, having the appearance of vast clouds of smoke. Nothing of the kind has equaled this raid since the earliest history of the country. Some have laid eggs. We are compelled, as in 1874, to note an almost total destruction of corn and all late vegetables. *Knox* : Entirely destroyed the corn and garden-products and the oats so badly that many fields were not reaped. *Osage* : Came August 24, and are still here. Have taken potatoes, buckwheat, and beans clean ; have injured corn about 15 per cent. and are still at work on it. Have deposited eggs in great quantities. They incline to travel southeast, but the wind is against them. *Cuming* : Came from Dakota August 4 ; staid about ten days ; injured late corn and potatoes, beans, gardens, &c. ; deposited many eggs, and have nearly all gone southward. Insects will destroy their eggs, and birds, quails, and prairie-chickens will eat their young when quite small in untold millions. In their matured state nothing can successfully cope with them save quails, prairie-chickens, and other insectivorous birds. *Dodge* : Swept down upon us from the great Northwest August 10, bringing terror to the hearts of our people. They remained about two weeks and deposited eggs in immense numbers. Hops were entirely destroyed ; fruit-trees are stripped of their leaves and in some sections of the new growth of bark. But half the corn is left. *Webster* : Injured corn slightly. *Franklin* : Damaged corn 50 per cent. Have now all gone southwest. *Adams* : Have taken about half the corn and injured young trees 50 per cent. *Saunders* : Have re-appeared since the last report. Corn, potatoes, and sorghum have been largely damaged ; tobacco, buckwheat, and beans have been wholly and gardens mainly destroyed ; and the earth is filled with eggs. *Seward* : Came from the north in immense quantities. They fed upon the corn and cultivated grapes, and destroyed 80 per cent. of the buckwheat. A few linger still in the south part of the county, traveling southwest. *Thayer* : Alighted about a week ago. Have injured corn very badly and taken all the garden-products. *Boone* : Came in large numbers August 3. Have destroyed all buckwheat, beans, and late corn, stripped the foliage from all young trees, and killed young fruit-trees. They staid about three weeks ; have all gone south. *Lancaster* : Are eating everything. *Platte* : In their flight south visited our county on the 10th of August, and in consequence of adverse winds remained two weeks. They entirely ruined late corn, made general havoc of vegetables, and filled our land with eggs. *Wayne* : Alighted and commenced work August 6 and 10. Injured late corn 25 per cent., potatoes slightly, deposited their eggs, and left August 13. *Antelope* : Came from the north August 5 in countless numbers, and swept late corn, buckwheat, potatoes, and beans clean. *Richardson* : First appeared yesterday, August 30, in small numbers from the northwest. *Merrick* : Crops promising up to the 10th of August, when the grasshoppers came with the wind from the north. The next day the wind changed and continued rather strong from the south for a week. The hoppers had

to stay on the ground and could not do much damage. On the 18th, the wind being from the northeast, they left, but toward evening a lot more came. On the 24th all left for the south. Buckwheat, late beans, garden-vegetables, late potatoes, &c., are a total loss. On the 17th some deposited eggs where the ground was bare. *Hall*: Large swarms appeared from the northwest August 10 at noon. Commenced depositing eggs on the 13th and 14th; on the 14th some left; still larger masses came in their stead, mostly from the northeast. Farmers generally tried to smoke them out, but most abandoned the effort after the third day. I protected my garden from ten days, but from the 11th to the 13th they piled in on me so fearfully that I could not keep them from stripping nearly every tree of its foliage. They have eaten about one-third of the apples and half the early with all the late corn. On the 23d and 24th they left in a southern direction, the wind being from the northwest.

Colorado.—Fremont: Appeared on the 5th of August. Have destroyed 75 per cent. of the corn, all the buckwheat, and a large portion of garden-vegetables. Millions have left, but many more have come to take their place. *Weld*: Destroyed all the buckwheat, nearly all the corn, and badly injured potatoes.

DISEASES AMONG FARM ANIMALS.—*North Carolina.—Camden, August 1*: Hogs are dying rapidly in some sections of the county, and the prospects of the pork-crop are not flattering. In some neighborhoods the disease seems to be quinsy; in others measles.

Florida.—Jefferson: Some complaint of cholera among hogs. *Madison*: Cholera among hogs reported in some places. *Suwannee*: Hog cholera very destructive in some localities, and some complaints of black-tongue among cattle. *Santa Rosa*: During the year I frequently noticed great losses of hogs from disease. When living seven miles south of Montgomery, Ala., we usually killed about 150 fine hogs annually, and though the hog-disease was all around us, we never lost but one hog. We prevented the disease by giving them copperas, mixed with chops, once or twice a week. We also frequently mopped them with coal-tar. The object in this last was to keep the lice off. The only hope is to prevent the disease, not to cure it.

Alabama.—Conecuh: At my last report a few hogs were dying with cholera. From the 1st to the 20th of July, some farmers lost almost their entire stock. It is generally estimated that at least 75 per cent. of all the hogs within 5 miles of Evergreen have died within the last six weeks. I gave my hogs spirits of turpentine, and all recovered. *Dale*: Hogs are dying with cholera; not many in the county. *Jefferson*: Hogs are dying with some disease called cholera.

Arkansas.—Prairie: We are having trouble with a disease among our horses. They are taken as in the epizooty, and after they apparently recover they break out with immense sores like boils, for which there is discovered, so far, no remedy.

Tennessee.—Monroe: Hog cholera is still prevailing in some localities; 50 per cent. have died. Some have lost 40 out of 60. We have now found out that calomel will cure them.

Indiana.—Huntington: A great many hogs are dying with cholera, some farmers losing nearly all they have.

Illinois.—Jackson: In the northern part of this county hogs are dying from some disease like measles.

Missouri.—Clay: A great fatality among hogs from cholera. *Cole*: Hog-cholera still raging.

BRIGHTENING PROSPECTS.—*Georgia.—Mitchell, August 1*: Our crop-

prospects are better at this date than for ten years past. The corn-crop is now safe, and the fodder being pulled ; the yield of this cereal, owing to the greatly increased area, will be ample for home-supplies, and will greatly increase the supply of meat, as the hogs will be better fed than usual. All kinds of stock are remarkably healthy and in fine condition, especially cattle and sheep, and our people are better supplied with beef and mutton than at any time since the war. Our farmers will now be able to live at home, and have their cotton-crop as a money surplus. The failure of the fruit-crop is seriously felt, and will greatly increase the bilious disorders of our section. *Thomas* : The season is fine. Corn is made, and a better crop than any since 1865. There is no boll-worm or caterpillar, and cotton looks well. Sugar-cane is good, and the acreage larger than usual. Farmers are hopeful. We have an abundant supply of feed, and if we had hogs we would make a full supply of meat and bread without going West for any. The cholera killed our hogs. *Troup* : I never saw such a year in my life. Seasons have been very favorable for all crops. If no disaster befall us we will have the best crops made since the war. Corn is out of danger. *Heard* : The seasons are fine, and our crop-prospects are the best we have had for years.

Florida.—Lery : This has been the best season for crops since 1866. Reports from all parts of the State represent that the crop-prospects are better than usual. There are no reports of insects. The new settlers in this county are well pleased with the climate, especially its healthiness, and there is a prospect of a large immigration from the North this fall.

Alabama.—Russell : Crops are better now than at any time since the war, and the prospect for the farmer is very flattering. Freedmen have done more and better work, with less trouble and rations, than in any year since they have been free. They are beginning to see and act for themselves. One great cause of this reform is that a large per cent. of the most worthless ones emigrated to the West last winter.

Texas.—Kendall : The yield of corn will be fully double that of any year for the last ten. The prospects for cotton are excellent. Potatoes promise an immense yield ; and the yield of wild fruit, such as grapes, cherries, apples, and plums, is unprecedented. *Nacogdoches* : The prospect for all kinds of crops is better than for the last six years ; for corn better than for fifteen years. The corn forwarded from the Department is three to four weeks earlier than any we have had, and suits this climate. *Navarro* : The corn-crop is better than for many years. Some claim to have made, without subsoiling, 60 to 75 bushels per acre. The average will be about 50 bushels per acre. *Robertson* : Not only in this county, but all over this section of country, we are having the most plentiful crops for years. *Live Oak* : Five times as much corn as last year was planted, and the yield is twice as great.

Arkansas.—Baxter : Crops of all kinds are looking well. Quite a number of farmers are buying reapers, mowers, and other improved implements for cultivating the soil. *Izard* : The general outlook for the farmer of this county was probably never better than at present. His labors last year were richly rewarded. Abundant supplies of food and forage have enabled him to prosecute his work this season with unusual vigor, and his efforts have again been greatly blessed. Neither drought, flood, nor storm has befallen him ; no prevailing disease affects his domestic animals, and peace and plenty reign throughout the land.

Indian Territory.—Choctaw Nation : We have had an unusual amount of rain this season. Corn is splendid. One old white farmer in Paul's Valley, in the Chickasaw Nation, has now 35,000 bushels of old corn on hand, besides several hundred acres in corn now that will average 60

bushels to the acre. There is no hay in this Nation, save the wild prairie-grass, but the wet season has kept the prairies green with a most excellent crop for hay.

Dakota.—Davison: The crops of wheat and oats are better than ever before. They are nearly all harvested, and the berry is plump and of good color. Corn and potatoes are as good as could be desired, This year is one of plenty.

HARVEST ASPECTS.—*Maine.—Penobscot, September 1:* Crops of all kinds are good, and harvested in good order.

New Jersey.—Ocean: By those in this section who depend upon agriculture for a subsistence this season will long be remembered as being one of the most discouraging ever experienced. The low price of produce combines with the excessive drought, which has so materially shortened the crops, to make the season a hard one.

Pennsylvania.—York: Harvest is over; the weather was fair, and all the crops housed are large in quantity and good in quality. All the products of the earth in this centennial year are blessed. Everything is good and fruitful, except work and money.

Virginia.—Loudoun: Farmers all seem satisfied with their crops, but many are disheartened by the extremely low prices. Our county mills generally give \$1 per bushel for wheat, and this pays better than shipping. Freight and commission very often reduce the price to 60 and 75 cents per bushel, in the neighboring town of Alexandria. Cattle have fattened well, but beef is very low. I cannot see that our farmers will make any money this year. *Sussex:* So far as my observations here and information from other sections of the State extend, I feel like congratulating the people of this county, and, indeed, of all Virginia, on the magnificent prospects for corn, cotton, and meat. I have no doubt that we are rapidly returning to our former happy state of "peace and plenty." Providence has certainly smiled on us this centennial year. *Greenville:* The farmers are turning attention to the making of their own meat and hay, and the good crops are producing quite a cheerful prospect.

Alabama.—Russell: The indications are that the adverse fortunes which have so long oppressed our country are to be lifted and prosperity again greet us. Food-crops are abundant all over our land. For the first time in years this county will not have its granaries in the West. Heavy interest on the bread eaten and hopeless regrets belong to the bitter memories of past struggles. Cotton will soon become, as it should, a surplus crop in this section. Economy, hard work, and prudent husbandry have accomplished a wonderful reform in this part of the country. *Limestone:* Our people, being convinced that raising cotton alone is ruining them, are turning much of their time to the raising of provision-crops.

Arkansas.—Franklin: Bread and meat are now abundant and cheap, and so is land. It is a favorable time for immigration, and we have plenty of room.

MINOR CROPS.—*Maryland.—Wicomico:* It is estimated that over a million watermelons have been shipped from this county this year.

New York.—Wayne: There is an immense crop of peppermint; the greatest yield of peppermint-oil ever known.

Virginia.—Prince George: Peanuts are looking well, though the stand is not good.

South Carolina.—Spartanburgh: The green worm has completely destroyed the cabbage-crop; no remedy found as yet.

Georgia.—Liberty: The pea-crop is promising. *Jefferson*: The pea-crop is promising. *Twiggs*: We have a good crop of pease.

Florida.—Hamilton: Pease are doing well. *Putnam*: The orange-crop is good.

Alabama.—Jefferson: Chufa is being tested extensively and gives general satisfaction. My opinion is that it will prove more valuable to the South, as food for hogs and hay for cattle, than any other crop. *Shelby*: The pea-crop is promising.

Texas.—Rusk: Ground-pease are doing well and promise a large yield.

Ohio.—Lucas: The cabbage-worm is doing great injury.

Missouri.—Lawrence: Flax yields 14 bushels of seed per acre. *Vernon*: Flax was cut short by wet and weeds; yield not over 2 bushels per acre. Castor-beans are 2 per cent. above average.

Tennessee.—Sumner: There is a growing interest in this county in cultivating broom-corn. There are instances in which the land at \$40 per acre has been purchased with one crop of broom-corn.

Texas.—Shackelford: Had there been a column for broom-corn I should have marked it 100.

SUPERSEDING COTTON WITH CEREALS.—*Texas.—Austin*: Owing to short crops of cotton for the past two years, and the low price, with no prospect for improvement in the immediate future, many of our cotton-farmers are becoming disheartened and directing their attention to other agricultural pursuits. Cotton has been grown as a specialty so long, and there being no present market for other products, it is rather difficult to decide which to choose. But Galveston is now just commencing to ship grain, and the production of small grain is recommending itself to our farmers. As there is generally a lack of working force this will perhaps be the easiest to cultivate and the most profitable. It remains to decide which are the varieties best adapted to our locality. Experience has shown that the white starchy varieties of wheat and oats will not succeed as a general thing; but as the red rust-proof oats succeed admirably, it is safe to infer that the red, hardier, and coarser varieties of wheat would also do well. It is stated that these varieties succeed in North Africa, which has a climate much the same as this part of Texas. Different varieties of barley succeed very well here, but as yet have been cultivated only on a very limited scale, since there was no market. A local market is now developing, and several farmers intend to enter into the production of barley. With proper care, very good tobacco can be grown here, and it is desirable to give several varieties a trial. We naturally look to the Department for aid in this effort to extend the number of our staple products.

GERMAN MILLET.—*Georgia.—Gwinnett*: German millet, lately introduced here, is a wonderful success. It yields more forage than any other crop.

Arkansas.—Arkansas: In this county millet is quite a success. Over two-thirds of the farmers are raising it, and the crop is looking beautiful. *Izard*: The only hay-crop worth noticing is German millet, which is quite promising.

Tennessee.—Sullivan: Millet is sown more than ever before, and promises an enormous crop on the land sown.

HUNGARIAN GRASS.—*Pennsylvania.—Bedford*: Hungarian grass seems to gain favor with our farmers. Its great yield under fair culture and season makes it a profitable crop for feed. *Montgomery*: We are just introducing Hungarian grass. It matures in a short time, and is well spoken of by those who have tried it.

Georgia—Richmond : Hungarian grass was above average 10 per cent., and fully 50 per cent. above last year's crop.

Mississippi—Jackson : The Hungarian grass succeeded well, and is looked upon by our stock-men as a godsend to the South. Its true value is as yet understood but by few.

DESTRUCTIVE FLOODS.—*Arkansas—Arkansas* : The late floods have been especially severe on the bottoms, destroying thousands of acres of corn and cotton, both of which promised extra crops. Twelve inches of rain fell (July 13) in one day. Floods destroyed 25 per cent. of corn-crop and 35 to 40 per cent. of cotton-crop.

Montgomery, Tennessee : Floods very destructive; damage probably equal to that of the memorable freshet of 1837.

Morgan, Ohio : Rain-fall during July, 7.8 inches.

HARVEST WAGES.—*Howard, Iowa* : From \$2.50 to \$3 per day, with board, is demanded by harvest-hands.

HARD TIMES.—*Alabama, Franklin* : The oldest business men in the country say they have passed through all kinds of reverses and hard times, from 1837 down; but that they have never known anything to equal the present in the utter prostration of all business. There is absolutely nothing doing, and no money. *De Kalb* : Times are harder than ever before; trade of all kinds is dull, and a general gloom pervades this whole section.

BEEES IN TEXAS.—The Italian honey-bees, introduced last year, are doing remarkably well.

TAR ON FRUIT-TREES.—*North Carolina, Montgomery* : According to the experience of Mr. Henry Reynolds of this county, tar is a perfect remedy for scarred and sun-cracked apple-trees. He says that by coating with new tar the trunk of a favorite fruit-bearer that was cracked and so decayed that the bark was dead and would peel off, he has restored it fully. He applies it to all the branches that show signs of decay. Since practicing this cheap remedy, he has not been troubled with insects. By applying tar to the trunk, and clearing away the surface at the roots so as to let it run down on them, peach-trees badly damaged by borers are fully restored. Replace the dirt, and you will have no more trouble with the tree for two years or more. If the tar is applied to young trees, the borers will not trouble them at all. He states that the coating should be applied in the winter, or early in the spring, with new tar.

MICROSCOPIC OBSERVATIONS.

By THOMAS TAYLOR, MICROSCOPIST.

CRANBERRY-ROT.—In the Third Annual Report of the New Jersey State Board of Agriculture for 1875, page 66, the following statement appears :

Thus far the efforts of the New Jersey Cranberry Association to discover a remedy for the rot have been unsuccessful. Liming has not appeared to be in any degree effective. Both in regard to the malady, and in the cure or preventives suggested there is a very wide range of opinion, based upon observation of localities having very great differences of conditions.

It is true, doubtless, that the Cranberry Association has failed to

discover a remedy for the rot of the cranberry, and that among its members there is some difference of opinion as to its cause and cure; but it has been publicly acknowledged by the association that peaty fermentation of cranberry-bogs had never been considered a cause of cranberry-rot until it was demonstrated by the investigations of the microscopist of this Department; and the leading cultivators of the cranberry in New Jersey have acknowledged, by letter, from time to time, to the Commissioner of Agriculture, the great benefit of his labors to the State of New Jersey; and, furthermore, at a late annual meeting of the association the president stated that the investigations made by him (the microscopist) would save hundreds of thousands of dollars to the cranberry-growers of the State. All this is wholly overlooked by the writer.

But "liming," he says, "has not appeared to be in any degree effective." The fact is that liming has never been thoroughly tested. This statement may be rather startling to some cranberry-growers, as it is well-known that Dr. Merreman has used 40 bushels of lime to the acre, and others have probably done as much. This leads to the question, for what purpose was the application of the lime recommended? Lime may be employed to prevent the decay of wood and other organic substances, or it may be employed for their decomposition. We have examples of the first in ships and other wooden structures used in the transportation of burnt lime. In these cases the lime is in excess of the organic matter, and the moisture of the wood is absorbed by the lime, and all the proximate principles of the wood are preserved; but if the conditions are reversed, and water and organic fiber are in excess of the newly-burnt lime, the woody fibers will decay. Lime may be employed to reduce vegetable substances, to correct acid in the soil, for the solution of silica, or for the decomposition of salts of iron. The sulphate of iron is often found in peaty soils, in which case the lime would combine with the acid, forming sulphate of lime, and oxide of iron would be precipitated. But the main use of lime, as recommended to the cranberry-growers, is to correct the acid condition of the peaty matter. Had they, therefore, after a trial of one or two years, reported that the acidity of the soil had been corrected, yet without practical results, such a report would supply a good basis for criticism; but the cranberry-growers have made no practical examination of the soil since the lime was applied, and they are not, therefore, prepared to make an intelligent report on the subject. All that is asserted is that the berries on the newly laid out bogs rot as much as ever, while those on the superior old bogs do not.

The value of lime to wet cranberry-land can never be known without repeated experiments and careful observation of results.

The bad condition of the bog-lands was discovered by digging up the subsoil, by its taste and smell, by chemical analysis, and by its comparison with soils known to produce uniformly healthy fruit. Some soils have been found so bad as to be practically irreclaimable. As has been stated heretofore, the composition of cranberry-land varies very much in New Jersey, not only as to its composition, but as to the quantity and quality of its peaty matter. It varies in thickness from 3 inches to 6 feet. It is obvious, therefore, that if 40 bushels of lime are necessary to bring into proper cultivation 3 inches of bad soil, it would take 160 bushels for a bad soil 12 inches thick. But it has been found that an uncultivated bog near the plantation of N. H. Bishop, Manahawkin, N. J., which was 6 feet thick, was nearly devoid of sulphureted-hydrogen odor and acid condition, and, with the bountiful supply of water at command, irrigation and sanding would supply all the elements necessary to successful cultivation.

The black sand of the cranberry-lands of New Jersey contains about $2\frac{1}{2}$ per cent. of vegetable matter. Where this is present no lime should be used, at least on the high lands, but irrigation is always necessary. The report of the New Jersey State Board of Agriculture for 1875, page 28, gives an analysis of nine varieties of soil of that State, consisting of gneiss, magnesian, slate, red shale, marl, soil of drift of South Jersey, soil of alluvium, sea-border, and soil of the tide-marshes. The organic matter contained in these soils is, respectively, 6.89, 5.52, 5.12, 7.45, 12.56, 1.90, 1.61, 4.14, 7.45 per cent. But the soil of the cranberry-bogs on which lime has been applied at the rate of 40 bushels to the acre is composed wholly of vegetable matter. In the same report, page 53, appears the following statement of an experiment made with lime by David Petit, esq., Salem, N. J.:

About twenty-five years ago I had a field of the outcropping of the middle green-sand marl-bed covered with Pennsylvania slaked lime, 100 bushels to the acre, before seeding with wheat. I was advised not to do so, that it would injure the crop, for lime applied directly to the wheat-crop would prevent its ripening and cause it to rust. But the land being of a dark color and early, the crop was good, without rust, and I had a good stand of young grass; but the next year the action of the lime with or upon the marl (although it was the poor outcropping) was strong on the young clover—gave it such an impetus in growth that it shot up above the timothy, then fell, and smothered it out long before mowing time.

It is stated by William G. Woodnut, page 54, that he used 900 bushels on one-third of an acre for a compost for low meadow to great advantage. He says:

Nine hundred bushels on one-third of an acre will make nearly 17 bushels to the rod, which will cover the land an inch deep. If the land was plowed 6 inches deep it would make the compost one-seventh lime. The result of the compost when applied to the lower meadow was very satisfactory.

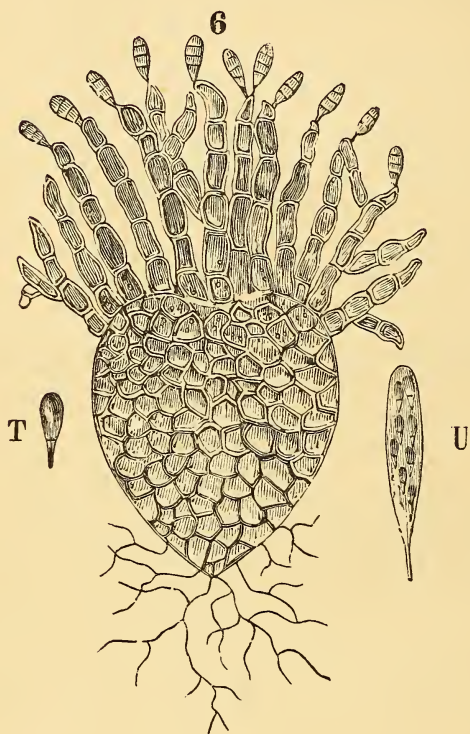
The president of the West Jersey Agricultural and Horticultural Association, Salem County, page 55, says:

Our farmers are using lime freely. * * * The quantity used per acre is from 40 to 60 bushels of slaked lime. * * * Many use it thus: The strips of land where the lime lay in rows were plowed, lime and sod, under together. *No result here till after years.* In fact its use seemed narrowed down to this—get the lime on.

William Statesir, esq., of Freehold, writes, page 56, that he uses 75 bushels to the acre with advantage.

We have evidence that in the Connecticut River Valley from 200 to 300 bushels to the acre have been used with advantage. In this valley, doubtless, a large amount of organic matter is deposited yearly, and in this case a large amount of lime may be profitably used. In the nine cases of analysis given, the organic matter in the respective soils varies from 1.90 to 12.56 per cent., the whole giving an average of about 5.84 per cent. The farmers use from 40 to 100 bushels to the acre with advantage. Now the cranberry bogs will average, probably, 18 inches of soil composed almost wholly of organic matter. If, then, 75 bushels are required to the acre containing 5.74, say 6 per cent., of organic matter, how much should a cranberry-grower use whose peaty soil contains 75 per cent.? It would require $937\frac{1}{2}$ bushels to the acre to equal that used by the New Jersey farmer; but as a large portion of the soluble lime would be washed away annually by irrigation, 1,000 bushels per acre would scarcely equal the farmer's application of 40 or 50 bushels.

But, fortunately, these calculations do not apply to all cranberry lands, since some require little or no lime, and, as stated in a former report on this subject, the use of lime in some cases would be injurious.



Irrigation and heavy sanding are all that is required in many cases for the improvement of the soil and correction of acid. Each cultivator must be the judge as to the quantity of lime and irrigation required, guided by the condition of the roots of the vines and the state of the soil.

The investigations made by the Department of Agriculture will lead, in all probability, to better selections of land for this culture in the future.

Mr. H. A. Green, of Atco, N. J., June 5, 1876, forwards to this Department several sheets of natural paper which grow on his cranberry bogs. This paper consists wholly of the mycelium (spawn) of a fermenting fungus, demonstrating that the peaty matter of his bog needs liming and irrigation; and no stronger proof could be advanced in favor of the expressed views of the Department in relation to cranberry rot, and the value of its investigation, than the growth of these matted sheets on the flooded bogs.

BLACK KNOT.—In the bulletin of the Bussey Institution for 1876, p. 449, the following statement is made:

The best and, so far as we know, the only correct statement of the etiology of the black knot was made by Mr. C. H. Peck, who, as we have already remarked, was the first to describe the conidial state of the fungus. He also first showed definitely when the ascospores ripened, and correctly reasoned that the knot was caused by the *Sphæria morboæ*, and that the fungus on plums and cherries was the same.

In a letter written by Mr. Peck, dated February 16, 1874, and addressed to Dr. Vasey, botanist of this Department, the following paragraph appears:

Mr. Taylor, microscopist of your Department, in his article on black knot, has demonstrated one fact of which I am glad, though I fear he has done it unwittingly. His Fig. 6 shows conclusively the connection between the *Cladosporium* and the *Sphæria*—a connection which I long suspected, and to which I refer in my papers on this subject.

And, in a letter addressed to Mr. Taylor, dated Albany, March 9, 1874, Mr. Peck says:

I am much interested in your investigation of the black knot, and thank you for your favor of the 6th instant.

The chief part of the excrescence is, without doubt, made up of the tissues of the host-plant, as shown by your specimens; and this unusual development of the tissues must have a cause, which I believe should be sought in the irritating or stimulating influence of the mycelium of the fungus. This need not necessarily permeate the whole mass, for it is well known that the egg of an insect deposited in the tissues of plants sometimes causes an excrescence very many times larger than itself. Dr. Vasey kindly sent me the Report of the Department of Agriculture for January, and I was glad to see that your Figs. 5 and 6 show the actual connection between the *Cladosporium* and flocci, * * * a connection which I had long suspected, but had never actually detected. These flocci often bear spore-like bodies, as represented by Fig. 6, which, in such cases of dimorphism, generally disappear by the time the true spores are perfected. Doubtless the specimen you figure was young, or, for some reason, sterile. You will find the real spores of the *Sphæria* in sacks, included in the perithecia, and appearing as in Figs. T and U.

FACTS FROM VARIOUS SOURCES.

THE COTTON MOVEMENT.—The crop of last year is mainly marketed between September 1 of a given year and the same date of the next. The National Cotton Exchange has made its statement of the commercial operations of the cotton year. The aggregate amount of cotton in

sight during the past year, including estimate of southern consumption, and of such transportation as could not be fully recorded, is 4,632,313 bales, an increase of 804,468 over the movement of the previous year. This is an increase of 17 per cent. The following is the statement of the net receipts at the ports:

	1875-'76.	1874-'75.
New Orleans.....	1,424,003	993,482
Galveston	465,529	354,927
Mobile.....	374,672	320,822
Charleston	396,417	412,931
Savannah	524,720	606,727
Wilmington.....	84,042	76,601
Norfolk	468,185	387,279
Baltimore	18,724	18,512
New York.....	219,654	179,163
Boston.....	73,327	39,885
Philadelphia	53,823	39,339
Providence.....	17,415	6,614
City Point, Richmond.....	30,036	32,385
Port Royal.....	23,529	27,912
Indianola.....	17,924	12,754
Other ports.....	3,671	358
Total.....	4,195,671	3,509,691

Adding to this total the estimate of overland shipments to manufacturers, 305,327 bales, and estimated southern consumption, 131,315, the total movement (called erroneously the "total crop" in commercial parlance) is made 4,632,313 bales. The average weight is made 469.67 pounds, making the aggregated pounds, 2,175,678,045.

The sea-island cotton movement, by States, is reported as follows:

Receipts at Savannah.....	5,036	
Receipts at Charleston direct	2,482	
Receipts at New York	80	
Shipped to foreign ports from Florida direct.....	.....
Total sea-island, Florida		7,598
Receipts at Savannah	7,172	
Deduct: Received from Florida.....	5,036	
Received from Charleston.....	.....
Received from Beaufort.....	15	
	5,051	
Total sea-island, Georgia		2,121
Receipts at Charleston.....	8,188	
Receipts at Port Royal.....	435	
Beaufort shipped to Savannah.....	15	
	8,636	
Deduct: Received from Florida direct.....	2,482	
Received from Florida via Savannah.....	1,434	
	3,916	
Total sea-island, South Carolina.....		4,722
Received at Galveston.....	74	
Total, Texas		74
Total sea-island crop		14,515
Averaging 323.5 pounds per bale.		

TRIAL OF WHEAT-SEED.—Mr. J. B. Armstrong, of Wicomico County, Maryland, from an ounce of Fultz wheat, sown in drills, obtained 84 ounces of wheat, and 76 ounces from an ounce of Clawson. The moles destroyed some of the later, or it would probably have equaled the yield of the Fultz. The Clawson has a very strong straw and stands up well

while growing. Mr. L. M. Wilson, of same county, obtained 2 bushels of fine white, flinty wheat from $1\frac{1}{2}$ pints of Clawson.

CROPS IN ASHTABULA COUNTY, OHIO.—According to the assessors' reports the farmers of Ashtabula, Ohio, raised 94,784 bushels of wheat from 8,120 acres; 2,240 bushels of rye from 275 acres; 4,475 of buck-wheat from 349 acres; 556,988 of oats from 17,159 acres; 809 of barley from 51 acres; 443,202 of corn from 12,083 acres; 558,891 of potatoes from 5,286 acres; 58,187 tons of timothy-hay from 55,362 acres; 1,033 tons of clover-hay and 93 bushels of clover-seed from 693 acres; 15,000 pounds of flax and 536 bushels of flax-seed from 43 acres; and 4,450 pounds of tobacco from 2 acres. The number of acres plowed for manure was 41; acres in vineyard 72, producing 145,100 pounds of grapes and 1,376 gallons of wine; sweet-potatoes raised, 37 bushels; butter made, 1,058,072 pounds; cheese, 5,557,172 pounds; sorghum-molasses, 83 gallons; maple-molasses, 8,834 gallons; maple-sugar, 236,740 pounds; acres in orchard 5,359, producing 94,402 bushels of apples, 258 of peaches, and 583 of pears; total number of acres in farms, 319,197, of which 102,814 were under cultivation, 142,408 in pasture, 70,450 in forest and 3,525 waste lands. Wool shorn, 98,869; sheep killed by dogs, 255, worth \$1,046; sheep injured, 160; the aggregate injury being estimated at \$380, making a total damage of \$1,426; a tax upon the farming interest enforced by the toleration of 1,934 dogs in the county.

TREE-PLANTING.—A correspondent in Livingston, Illinois, reports that the planting of trees in groves and shelter-belts, and for ornamental purposes, has become very general in that county. Ten years ago 95 per cent. of the area of the county was treeless; but now a farm without a grove is an exception to the general rule. Black-walnut has the preference for profit and ease of cultivation; but elm, soft maple, willow, cottonwood, European larch and ash are common, while evergreens are popular for ornamental purposes, and occasionally are planted in groves and shelter-belts.

AGRICULTURAL STATUS OF MONROE COUNTY, VIRGINIA.—Mr. B. B. Gwinn, president of the Indian Creek Farmers' Club, makes a report to the Department, for this county, from which the following is condensed: A wheat-crop above average in yield and of extra quality has been harvested in good condition. A fair oat-crop has been secured. Corn has been shortened by drought. An abundant hay-crop of superior quality has been harvested without injury. The prospect for fall pastures is good, and all kinds of stock are thriving, except sheep, which have suffered greatly from the excessively hot weather.

A NEW AND LIMITLESS OUTLET FOR AMERICAN BEEF.—In our Monthly Report for June, page 203, under the head of "Fresh beef in London from the United States," is a paragraph describing the conditions under which fresh beef, in quarters, had been safely transported across the Atlantic in the winter-months. Subsequent advices report that the newly-discovered and patented process of preserving without any chemical appliances, and transporting unimpaired, fresh beef by simply suspending it in an atmosphere from which moisture is expelled and kept at a uniformly cool temperature, proves equally successful in the hottest weather. The Agricultural Gazette, speaking with reference to the London market, states:

As we are now in receipt of an average weekly supply of some 400 tons of American beef, which, after being killed and packed about fourteen days in extreme hot weather,

arrives quite sound, we may reasonably expect in the winter a very much larger supply. The herd and flock masters of England will perceive that it is always possible that the impossible may happen. An unexpected revolution in their industry suddenly bursts upon them. The English meat market, that appeared a monopoly able to defy all competition, is in a moment dispersed, and the market thrown open to the productions of the wide, interminable pastures of the New World.

A correspondent of the *Gazette* indorses its frequent commendations of American beef, and states that in spite of the extreme temperature of the week ending August 19, meat from the western part of the United States in the shambles at Newgate was in as perfect condition as that sent up from Leicester or York. In fact, it was in finer order, having "ripened" during the fourteen days since it was slaughtered. The development of this trade astonishes the English people. The first trial cargo arrived at Liverpool last Christmas, and its reception by the British meat-consumers caused a rapid enlargement of the trade which has failed to meet the increasing demand on account of the necessary delay in fitting up the holds of vessels for its transportation. This American meat compares favorably with that of English production, much of which, according to the aforesaid correspondent, is of inferior quality. A great deal is artificially fed, producing an under-proportion of fat and lean from the use of oleaginous foods. Such meat will not be able to compete with the American grass-fed bullocks.

KENTUCKY AGRICULTURAL STATISTICS.—Hon. W. J. Davie, State commissioner of agriculture of Kentucky, reports that the month of August was remarkably favorable to vegetation, high temperature being tempered with abundant rains. Intelligent efforts at fertilization are prosecuted in different parts of the State, and in the breeding of farm-animals Kentucky holds the first rank in regard to horses and mules, if not in cattle, hogs, and sheep. Fruit, vineyard, and garden culture are rapidly advancing, and dairying is becoming an important industry. The corn-crop is estimated at 15 per cent. above average, with a large surplus of last year's crop still on hand. Wheat is better in quality than in any previous year since the war, but is short in quantity from a heavy deficiency in the blue-grass region and the Ohio River counties above Salt River. The Fultz stands highest among the new wheats cultivated, being hardy, stiff-strawed, and midge-proof, and yielding good flour. Barley is full average, and rye 10 per cent. below. Rust has cut the oat-crop to 40 per cent. below average. Blue-grass was short but vigorous, and other grasses were in good supply. Tobacco-plants were injured in the spring by the plant flea and fly, necessitating an extensive resowing of the beds about May 1, and greatly delaying the planting of the crop, and bringing them in an immature state under the blistering heats of July. Bottom crops were "drowned out," and others badly "frenched." Other injurious influences co-operated to reduce the estimate of 75 per cent. of an average the 1st of July to 66 per cent. August 1, and to 55 per cent. September 1. The best stands and prospects were in the Ohio River counties above Louisville, where the "cutting"-leaf is raised. Here the crops will be above two-thirds of an average. In the interior counties, where the "shipping"-leaf is grown, they promise but little over a third of a crop. Potatoes are about 10 per cent. above average.

OUR FOREIGN TRADE.—The Bureau of Statistics of the Treasury report the following in regard to our foreign trade for two years ending June 30, 1876:

MERCHANDISE AND THE PRECIOUS METALS.

	1876.	1875.
Domestic exports.....	\$644,956 406	\$643,094 767
Re-exports of foreign imports.....	21,270 035	22,433 624
Total exports	666,226 441	665,528 391
Imports	476,677 871	553,906 153
Excess of exports	189,548 570	111,622 238

THE PRECIOUS METALS.

Domestic exports.....	\$50,038 691	\$83,857 129
Re-exports of foreign imports	6,467 611	8,275 013
Total exports	56,506 302	92 132 142
Imports	15,936 681	20,900 717
Excess of exports	40,569 621	71,231 425

MERCHANDISE.

Domestic exports.....	\$594,917 715	\$559,237 633
Re-exports of foreign imports.....	14,802 424	14,168 611
Total exports	580,114 291	545,069 027
Imports.....	460,640 190	533,005 436
Excess of exports	119,474 101	12,063 581

These figures are the exponents of a healthy progress. Our exports of merchandise increased \$35,680,077, or $6\frac{1}{2}$ per cent., while our imports fell off \$172,365,246, or 32 per cent. That is, our home production, after meeting an increased home demand, found an increased foreign market for its surplus. The balance of our export-trade increased over \$100,000,000. Our net export of precious metals fell off nearly one-half, and now amounts to about half of our home production. The latest estimates, based upon the returns of gold and silver transportation companies, show that the gold product of 1875 was about the average of the last ten years, or over \$26,000,000, while the silver product has enlarged, making the product of both metals for 1875 over \$80,000,000. The product of 1876 is expected to reach \$90,000,000.

Among the leading articles of agricultural exports, the value of domestic animals fell from \$2,672,555 in 1875 to \$2,436,287 in 1876; breadstuffs rose from \$111,458,265 to \$131,181,555; cotton and its manufactures from \$194,710,507 to \$200,382,240; bacon and hams rose from \$28,612,613 to \$39,664,456; pork rose from \$5,671,495 to \$5,744,022; cheese fell from \$13,659,603 to \$12,270,033; lard, from \$22,900,522 to \$22,429,485; refined sugar rose from \$2,585,382 to \$5,552,587; tobacco-leaf fell from \$25,241,549 to \$22,737,383.

DIVIDING UP RANCHOS IN CALIFORNIA.—A San Francisco journal notes with satisfaction the disposition of large land-owners to part with their surplus acres. This policy has been especially pursued in the southern counties, especially in Tulare and Kern. Here farms with from 80 to 160 acres have combined to secure the best system of irrigation yet adopted on the Pacific slope. Two or three owners of large Mexican land-grants in Santa Clara and Salinas valleys lately divided their surplus land into tracts ranging from 40 to 160 acres. This example is about to be followed by others, and the actual reduction of farms is becoming a settled policy.

WHEAT-CULTURE IN TENNESSEE.—Our statistical correspondent in Rutherford County, Mr. J. H. Crichlow, last year furnished the Depart-

ment with an elaborate and valuable tabular statement of wheat-growing in his county. The same writer has furnished us with a similar statement, embracing a larger acreage and more numerous cultivators. Last year his tables embraced 137 wheat-cultures and 2,721 acres, yielding 33,404 bushels, an average of $12\frac{1}{4}$ bushels. This year the tables include 143 cultures and 3,079 acres, producing 28,646, or $9\frac{1}{8}$ bushels per acre, a marked decline from the results of last year. This decline is attributed almost entirely to the rust. The quality of the crop is greatly in advance of last year. A noticeable feature in this year's crop is the absence of smut, a fact probably due to the free use of blue-stone.

Of the different varieties of seed, the Walker was preferred in 37 cases; the Mediterranean and the Tappahannock or Boughton, each, in 30 cases; the Reed wheat, in 14; the amber, in 10; the white-bearded, in 8; the Fultz, in 6; the Odessa and golden chaff, in 3 each; the Missouri and Genesee, in 1 each. The largest tract cultivated contained 136 acres; the smallest, one acre; the average, 20.83 acres. The maximum yield was 25 bushels of Mediterranean per acre on 6 acres, on upland soil, from which a crop of millet had been gathered. The next best crop, 1 acre of Fultz, yielding $22\frac{1}{2}$ bushels, also followed the millet. In over three-fourths of the cases the wheat-crop followed corn or cotton and cotton. The crops reported were almost exclusively grown on upland soil, only 6 being on bottom and 1 on second bottom. Smut appeared in 29 cases, but in some of these it is barely mentionable.

Parties growing.	Variety.	Amount sown per acre.	Number of acres.	Yield per acre.	Total.	Kind of soil.	Preceding crop.	Smut or no smut.	Soaked or not in blue-stone solution.
James M. McCulloch.	Mediterranean.	Bushels, 1	30	6 $\frac{1}{2}$	Bushels, 200	Upland.	Corn.	.....	.....
George Webb.	Tappahannock.	1	14	8 $\frac{1}{2}$	121	do.	Cotton.	.....	.....
W. R. Ledbetter.	Fultz.	1	60	15	900	do.	Corn and cotton.	.....	.....
W. B. Drummright.	Mediterranean.	1	6	8	48	do.	Oats.	.....	.....
S. R. Sanders.	do.	1	18	14	252	do.	Corn.	.....	.....
do.	do.	1	5	14	72	do.	Cotton.	.....	.....
R. E. Joran.	Tappahannock.	1	40	11	440	Bottom and upland.	Corn and cotton.	.....	.....
W. N. Neal.	Mediterranean.	1	30	5	150	Corn.	Corn.	.....	.....
S. H. Singleton.	do.	1	31	9 $\frac{1}{2}$	294	Upland.	Cotton.	.....	.....
Lytle Sanders.	do.	1	11	12	132	do.	Wheat.	.....	.....
D. M. Leatherman.	Walker.	1	30	13	390	do.	Cotton.	.....	.....
J. M. Leathorman.	do.	1	20	12 $\frac{1}{2}$	250	do.	do.	.....	.....
Speucer Watkins.	do.	1	20	10 $\frac{1}{2}$	207	do.	do.	.....	.....
Lafayette Burrus.	Mediterranean.	1	40	8 $\frac{1}{2}$	330	do.	Corn and cotton.	.....	.....
D. P. Perkins.	do.	1	65	8 $\frac{1}{2}$	520	do.	Corn.	.....	.....
R. S. Donnell.	Walker.	$\frac{1}{2}$	50	8 $\frac{1}{2}$	425	do.	do.	.....	.....
J. R. Mathis.	Tappahannock.	1	12	7	84	do.	Open.	.....	.....
J. A. Moore.	Mediterranean.	1	41	13	533	do.	Cotton.	.....	.....
Joseph Tansom.	Boughton.	1	136	11	1,496	do.	Wheat and cotton.	.....	.....
J. B. Randolph.	Mediterranean.	1	41	12	492	do.	Corn.	.....	.....
J. P. McAdoo.	Walker.	1	8	8 $\frac{1}{2}$	68	do.	do.	.....	.....
S. L. McAdoo.	do.	1	60	7 $\frac{1}{2}$	410	do.	Corn and cotton.	.....	.....
B. W. Henry.	Odessa.	1 $\frac{1}{2}$	100	7 $\frac{1}{2}$	750	do.	Wheat.	.....	Soaked.
William Shanklin.	Boughton.	$\frac{1}{2}$	35	13	195	do.	No smut.	.....	do.
Tom Wells.	do.	1	21	5	290	do.	Wheat and corn.	.....	do.
John Nelson.	Walker.	1	40	5	105	do.	Some smut.	.....	do.
Fayette Wood.	Mediterranean.	1	10	8	200	do.	No smut.	.....	do.
Mack Johnson.	Reed.	1	5	6	30	do.	do.	.....	do.
Lee Howland.	Walker.	1	25	8	224	Corn.	do.	.....	do.
Jo Dill.	do.	1	6	9	54	Second bottom.	Corn.	.....	Soaked.
J. H. Borton.	do.	1	20	7 $\frac{1}{2}$	150	Upland.	Corn and cotton.	.....	.....
G. S. Dillon.	do.	1	35	10	350	do.	Corn.	.....	.....
John Dillon.	Walker.	1	6	9	54	do.	Corn and oats.	.....	.....
Sam Kerr.	Reed.	1	42	7 $\frac{1}{2}$	325	do.	Corn.	.....	.....
Silas McHenry.	do.	1	40	7 $\frac{1}{2}$	294	do.	do.	.....	.....
John Demont.	do.	1	12	9 1-6	110	do.	do.	.....	.....
Mrs. D. Crouse.	do.	1	10	9	90	do.	do.	.....	.....
P. M. and J. W. Overall.	White-bearded.	1	50	6 $\frac{1}{2}$	325	do.	No smut.	.....	.....
John Brown.	Walker.	1	9 $\frac{1}{2}$	11	104	do.	do.	.....	Soaked.
John F. Brown.	do.	1							

Parties growing.	Variety.	Amount sown per acre.	Number of acres.	Yield per acre.	Total.	Kind of soil.	Preceding crop.	Smut or no smut.	Soaked or not in blue-stone solution.
B. F. Phillips	Reed.....	Bushels. 1	92½	Bushels. 10	Bushels. 925	Upland	Corn and cotton	No smut	
William Elrod	do.....	1	35	9½	78	do	do	do	Soaked.
W. M. T. Reeves	Walker.....	1	8	9½	332	do	do	do	
R. T. Knox	do.....	1	15	9	135	do	Corn	Some smut	
W. B. White	do.....	1	20	17½	350	do	do	do	
Rev. J. Warren	Mediterranean.	1	15	8	120	do	do	No smut	
M. F. Harris	Golden-chaff.	1	6	15	90	do	do	do	
S. B. Smith	Walker.....	1	8	20½	164	do	Cotton	do	Soaked.
Henry McHenry	do.....	1	7	11	77	do	do	Some smut	Do.
Mrs. M. Hill	Mediterranean.	do	16	6	96	do	Corn	do	
John Hill	Walker.....	1	12	6½	78	do	do	No smut	Soaked.
L. Allen	Mediterranean	do	4	3	12	do	do	do	
Brown & Bruce	Reed.....	1	24	7½	180	do	Corn and cotton	do	
J. E. Smith	Walker.....	1	15	9	135	do	do	do	
R. T. Smith	do.....	1½	6	12	72	do	do	do	
Albert Smith	Reed.....	1	15	8	120	do	Cotton	do	Soaked.
E. H. Debridge	Mediterranean	1	10	7½	75	do	Corn and cotton	do	Do.
James Vaughn	Boughton.....	1	8	7½	64	do	Corn	do	Do.
F. K. McCrea	Mediterranean	1	10	7½	75	do	do	do	Do.
Tom McClaren	Boughton.....	1	5	11½	58	do	do	do	Do.
J. L. Vaughn	do.....	1	6	6½	40	do	do	do	
A. J. Lone	Tappahannock	1	10	7½	75	do	do	Some smut	
R. H. Vaughn	Walker.....	1	20	11½	225	do	do	do	
J. R. Vawter	Mediterranean	1	5	21	105	do	Clover	No smut	Soaked.
Porsley & Ryan	Amber.....	1	6	6½	39	do	Corn	do	Do.
John W. Ryan	do.....	1	10	16	160	do	do	do	Do.
B. P. Ryan	do.....	1	5	11	55	do	do	do	Do.
M. Ryan	do.....	1	12	6	72	do	do	do	Do.
J. A. Maxwell	Mediterranean	1	10	12½	125	do	do	do	Do.
William Haynes	Missouri.....	1	4	3½	13	do	do	Some smut	
H. D. Suell	Mediterranean	1	9	7½	68	do	do	No smut	Soaked.
William Jones	Boughton.....	1	6	9½	56	do	do	Some smut	
A. Burkhardt	do.....	1	3	5½	16	do	do	do	
Henry Edwards	do.....	1	5	7	35	do	do	do	
Fred. Debridge	Amber.....	1	7	6	42	do	do	do	
Tom Haynes	do.....	1	15	7	105	do	do	No smut	Soaked.
Everett Haynes	Walker.....	1	10	11	110	do	do	do	Do.
W. C. Henry	Mediterranean	1	60	6	360	do	do	do	Do.
Wade & Hunt	Amber.....	1½	30	9 1-6	275	do	Corn and cotton	do	Do.
G. S. Harding	Boughton.....	1				do	do	do	

Dr. J. B. Redford	Walker	1	12	7	34	do	Corn	do	Do.
J. M. Haynes	Boughton	1	20	15	300	do	Wheat and oats	do	Do.
Joseph Hollowell	Mediterranean	1	20	14½	230	do	Cotton	do	Soaked.
Do	Walker	1	10	10½	165	do	do	do	Do.
William Roberts	Boughton	1	15	7½	110	do	Open	do	Soaked.
Do	do	1	12	6½	180	do	Cotton	do	Do.
Jack Todd	Mediterranean	1	16	8	128	do	Some snut	do	Soaked.
W. J. Hooper	Walker	1	25	8	200	do	Corn	do	Soaked.
E. B. Wado	Putz	1	25	8½	213	do	Cotton	do	Do.
G. W. Matthews	Odesse	1	10	9	90	do	do	do	Do.
E. L. Matthews	do	1	30	8	240	do	Corn	do	Do.
John Matthews	Boughton	1	5	9	45	do	Cotton	do	Do.
D. E. Blum	Mediterranean	1	16	12	192	do	do	do	Do.
A. B. Jones	White-bearded	1	55	9½	523	do	Corn and cotton	do	Soaked.
James Dillon	do	1	10	17½	175	do	Cotton	do	Do.
R. H. Bradley	Boughton	1	10	16½	165	do	do	do	Do.
A. F. Love	White-bearded	1	30	14	420	do	Corn	do	Do.
S. J. Cobb	Boughton	1	20	11½	225	do	Wheat	do	Do.
J. P. Hooker	Walker	1	15	20	300	do	Open	do	Do.
J. W. Neale	Tappanmuck	1	27	5½	149	Bottom	Corn	do	Do.
J. M. Baird	Walker	1	35	16	560	Upland	Wheat	do	Do.
A. P. McAdoo	do	1	40	7½	300	Bottom	Corn	do	Do.
Samuel Donnell	Putz	1	80	8	640	Upland	Corn and cotton	do	Do.
T. J. Wado	Ambur	1	10	10½	165	do	Cotton	do	Do.
F. M. Arnold	White-bearded	1	5	13½	125	Bottom	Corn	do	Do.
Ruben Herod	Walker	1	35	10	466	Upland	Corn and cotton	do	Do.
Willis Lantford	do	1	10	100	do	do	Corn	do	Do.
Do	Golden chaff	1	12	16½	200	do	do	do	Do.
Pavor Cason	White-bearded	1	42	7½	315	do	do	do	Do.
J. E. Granstaff	Reed	1	20	8	160	Bottom	do	do	Do.
Do	White-bearded	1	20	8	160	do	do	do	Do.
Do	Boughton	1	10	8½	85	Upland	do	do	Do.
E. M. Rucker	Walker	1	30	10	300	do	Clover and Corn	do	Do.
J. N. Longdry	do	1	25	5½	138	do	Corn	do	Do.
W. P. Henderson	Tappanmuck	1	27	22½	196	do	Corn and cotton	do	Do.
Do	Putz	1½	1	224	33	do	German millet	do	Do.
I. S. Webb	Tappanmuck	1	20	9½	190	do	Corn	do	Do.
Do	do	1	5	14	70	do	do	do	Do.
Jos. Irby	do	1	30	10	300	do	Cotton	do	Do.
C. Beesly	Walker	1	8	10	80	do	Corn	do	Do.
John Beesly	do	1	15	10	150	do	Corn and cotton	do	Do.
W. L. Patterson	Genesee	1½	6	25	150	do	Millet	do	Do.
Dr. William Whitson	Walker	1	40	8	320	do	Corn	do	Do.
Frank Fletcher	do	1	40	9	360	do	do	do	Do.
Martin & Ellis	Golden chaff	1	25	11	275	do	Corn and millet	do	Do.
W. H. Smith	White-bearded	1	30	12	360	do	do	do	Do.
W. S. Rhodes	Reed	1	28	12	336	do	do	do	Do.
J. T. Smith	Boughton	1	28	9½	273	do	Cotton	do	Do.
W. N. Jordan	do	1	9	5½	50	do	do	do	Do.
Do	Mediterranean	1	5	9	45	do	do	do	Do.
L. H. House	do	1	14	9	126	do	Corn and cotton	do	Do.
Do	Boughton	1	7	9	63	do	Cotton	do	Do.

Parties growing.	Variety.	Amount sown per acre.	Number of acres.	Yield per acre.	Total.	Kind of soil.	Preceding crop.	Smut or no smut.	Soaked or not in blue-stone solution.
L. H. House.	Tappahonock.	Bushels	6	Bushels.	Bushels.	Upland	Corn.	No smut.	Soaked.
Do.	Amber.	1	7	11	66	do	do	do	Do.
W. A. Jones.	Boughton.	1	11	10	70	do	do	do	Do.
Do.	Mediterranean.	1	4	7½	82	do	do	do	Do.
Hillman & Minor.	Boughton.	1	85	11	44	do	Cotton and oats.	do	Do.
Dr. J. H. White.	Walker.	1	25	6	510	do	Corn.	Some smut.	Soaked.
W. Arch Haynes.	Boughton.	1	24	8½	213	do	do	No smut.	Do.
T. M. King.	Mediterranean.	1½	7	9	192	do	Cotton.	do	Do.
Do.	Walker.	14	13	14	117	do	Corn.	do	Do.
J. J. Lawing.	Boughton.	.....	20	9	190	do	do	do	Do.
Do.	Mediterranean.	.....	10	9	65	do	do	do	Do.

BRITISH GRAIN IMPORTS.—From late official returns of the British Board of Trade, it appears that the total import of wheat into the United Kingdom during the first six months of 1876 amounted to 21,702,299 cwt. against 18,986,424 cwt. during the corresponding period of 1875, an increase of 2,715,875 cwt., or 14.3 per cent. All the great wheat-raising countries from which supplies have hitherto been drawn have decreased their quota, while all the smaller grain countries have increased their supplies. The United States, contributing the largest share of the foreign import, decreased her contribution from 11,099,066 cwt. to 10,748,803 cwt., and from over 58 per cent. of the total wheat import to less than 50 per cent. Russia fell off from 3,804,880 cwt. to 3,410,241 cwt., and from 20 per cent. of the total import to 16 per cent. Germany declined from 2,029,830 cwt. to 1,659,830 cwt., and from nearly 11 per cent. to less than 8 per cent. France decreased her import from 258,771 cwt. to 203,505 cwt.; British North America from 582,008 cwt. to 560,989 cwt. On the other hand, the Ottoman Empire, including Roumania, increased from 348,514 to 824,472, and from less than 2 per cent. to nearly 4 per cent. of the total import; Egypt rose from 183,616 cwt. to 898,288 cwt., and from 1 per cent. to nearly 5 per cent. of the total import; British India, from 118,746 cwt. to 1,166,358 cwt., and from 0.6 per cent. to over 5 per cent. of the total import; Denmark from 71,235 cwt. to 248,975 cwt.; Chili from 311,047 to 442,774 cwt.; other countries from 178,711 cwt. to 1,538,720 cwt., and from less than 1 per cent. to over 7 per cent. of the entire import. The increase from Oriental countries is especially remarkable, and is due, at least in part, to increased facilities in transportation.

The aggregate value of the wheat import rose from £9,629,963 to £11,529,304, or nearly 20 per cent. The rate of increase in the value being nearly 50 per cent. greater than that of quantity shows that prices ruled considerably higher in 1876 than in 1875. It is remarkable that the total value of American wheat rose from £5,680,603 to £5,826,036, an increase of 2 per cent., in spite of the decrease in quantity; in 1875 the value of the American import was nearly 60 per cent. of the whole; in 1876 it was a little over 50 per cent. Russia received in 1876 £1,725,002 for her wheat against £1,850,253; Germany fell from £1,084,245 to £945,337; France from £129,735 to £110,110. On the other hand, Denmark rose from £35,893 to £139,200; Turkey from £160,709 to £378,579; Egypt from £87,619 to £400,842; Chili from £160,234 to £231,401; British India from £56,015 to £584,177, or more than tenfold; British North America from £292,916 to £301,328; other countries from £91,741 to £387,292.

In 1875 the average price of the whole import was 10s. 1½d. per cwt. In 1875, American wheat was valued for import at 10s. 7½d. per cwt.; in 1876 at 10s. 10d. per cwt.; Russian wheat rose from 9s. 8½d. per cwt. in 1875 to 10s. 1½d. in 1876; Danish wheat from 10s. 1d. per cwt. to 11s. 2d.; German, from 10s. 8d. per cwt. to 11s. 4½d.; French, from 10s. to 10s. 10d.; Chili, from 10s. 3½d. to 10s. 5½d.; British India, from 9s. 5½d. to 10s. 2d.; miscellaneous countries from 10s. 4½d. to 11s. 5½d. On the other hand, Turkish wheat fell from 9s. 2½d. to 9s. 9¼d.; Egyptian, from 9s. 6¼d. to 8s. 11d.; British North America, from 10s. 9½d. to 10s. 9¼d.

Barley imports, in quantity, fell from 5,660,925 cwt. to 3,551,043 cwt., and in value, from £2,402,220 to £1,440,960, or from 8s. 5¾d. per cwt. to 8s. 1½d. per cwt. Oats declined in quantity from 5,540,930 cwt. to 5,012,236 cwt., and in value from £2,501,536 to £2,106,321, or from 9s. to 8s. 5d. per cwt. Pease declined from 890,546 cwt. to 779,394 cwt.,

and from £411,133 to £355,407; beans from 1,606,834 cwt. to 1,931,873 cwt., and from £743,501 to £812,247.

Of wheat meal and flour imported, increased in quantity from 2,820,698 cwt. to 3,076,345 cwt., and in value from £2,196,086 to £2,434,943; the average per cwt. rising from 15s. 6 $\frac{3}{4}$ d. to 15s. 9 $\frac{1}{2}$ d. Germany increased her import from 327,669 cwt. to 457,622 cwt., and from £265,196 to £375,847, raising her average per cwt. from 16s. 2 $\frac{1}{6}$ d. to 16s. 5d. France fell off in quantity from 1,041,186 cwt. to 598,521 cwt., and in value from £797,892 to £484,115; but her average per cwt. rose from 15s. 4d. to 16s. 2d. The United States raised her quantity from 1,100,802 cwt. to 1,306,246 cwt.; her total value from £800,323 to £974,775, and her average per cwt. from 14s. 6 $\frac{1}{2}$ d. to 14s. 11 $\frac{1}{6}$ d. It is evident that the staple of our export consists of our inferior grades of flour. British North America increased her quantity from 24,758 cwt. to 60,242 cwt.; her total value from £15,812 to £43,880, and her average from 12s. 9 $\frac{1}{6}$ d. to 14s. 6 $\frac{7}{8}$ d. per cwt.

Indian-corn meal, including maizena, decreased in quantity from 5,059 cwt. to 4,735 cwt.; but in value it rose from £6,547 to £9,487.

MOVEMENT OF POPULATION IN FRANCE.—M. Leonce de Lavergne the celebrated French agronomist, in a communication to the *Economiste Français*, finds ominous indications in the French census. The increase of French population has always been slow, but in later decades it has shown signs of ceasing altogether or to be substituted by a positive decline. The languid movement indicated by the census of 1856 almost "took the proportions of a disaster." The rate of increase was slightly enhanced up to the Franco-Prussian war, among the fatal results of which was an excess of 550,000 deaths over births, besides the loss of the populations of Alsace and Lorraine. The year 1872 was more cheerful, its registry showing an unprecedented number of marriages, and an excess of 172,936 births over deaths, the former being 966,000 and the latter 793,064. But this upward movement languished. The *Annuaire de l'Economie politique* for 1873 shows for that year a decrease of 19,636 births and an increase of 51,524 deaths, the former being 946,364 and the latter 844,588, leaving a surplus of only 101,776, or 71,160 less than in 1872, as the natural increase of the population. The departments of Alpes-Basses, Alpes-Hautes, Alpes-Maritimes, Aube, Calvados, Charente, Charente-Inferieure, Côte d'Or, Doubs, Eure, Eure-et-Loir, Gers, Hérault, Indre-et-Loire, Isère, Jura, Lot-et-Garonne, Maine-et-Loire, Marne, Orne, Rhône, Sarthe, Seine-Inferieure, Tarn-et-Garonne, Var, and Yonne report an aggregate excess of deaths of 14,509; the remaining departments show an excess of births of 116,285. These facts, however, indicate no decay in the virility of the French race, but the presence of social conditions unfavorable to marriage, and consequently to the growth of the population. Economic causes have enforced the practice of celibacy upon a large portion of the laboring population, the most prolific portion of the whole.

M. Garnier, an eminent French statistician, takes a more cheerful view of the situation, and from data extending up to 1875 finds an annual augmentation of the population from the excess of births over deaths of 137,356, which he thinks is as great as the productive resources of France, at their present rate of development, will support.

FRENCH IMPORTS OF SPANISH AND ITALIAN WINE.—The French superior council of commerce, agriculture, and industry has been gravely studying some facts ominous to the wine interest of France. Official statistics show that in 1871 Italy took but 53,000 to 54,000 hectoliters

of French wines (1,426,561 to 1,452,979 gallons) against a previous aggregate of 250,000 hectoliters, (6,604,450 gallons,) while the French import of Italian wines has risen from 12,000 hectoliters (317,013 gallons) to 129,000 hectoliters, or 3,407,896 gallons. The Spanish wine-trade presents still more discouraging figures. The French importations from the Peninsula had risen from 179,000 hectoliters (4,728,786 gallons) in 1872 to 541,000 hectoliters (14,292,030 gallons) in 1873 and 559,000 hectoliters (14,767,550 gallons) in 1874. The annual export of French wines to Spain ranged from 6,000 to 8,000 hectoliters, or from 153,500 to 211,350 gallons. In view of this disproportion, the council was unanimous in demanding that the import-duty upon Italian wines be raised to 5 francs per hectoliter, about $3\frac{3}{4}$ cents per gallon, for common wines, and 20 francs per hectoliter, or 15 cents per gallon. The cheapness of French wines at home is significantly indicated by the fact that so small a duty is regarded as sufficient for the protection of the home product from destructive competition in the home market.

FOREIGN TRADE OF FRANCE.—During the first half of 1876 the aggregate value of articles imported into France was 1,811,057,000 francs, an increase of 170,573,000 francs, compared with the aggregate of the same period of 1875; the exports amounted to 1,769,646,000 francs, a decrease of 108,536,000 francs. The following imports exhibit an increase: Cereals, from 59,780,000 francs in the first half of 1875 to 94,338,000 francs in the first half of 1876; dried legumes, from 1,735,000 to 5,684,000; wines, from 7,585,000 to 14,667,000; cattle, from 38,900,000 to 53,545,000; butter and cheese, from 14,475,000 to 16,882,000; horses, from 7,447,100 to 11,883,080; silk, from 139,537,008 to 151,972,000; hemp, from 4,680,000 to 7,530,000; wood for construction, from 26,896,000 to 37,598,000. On the other hand, the importation of foreign sugar during the same comparative periods fell from 47,684,000 francs to 45,919,000 francs; wool, from 171,609,000 to 159,835,000; oleaginous seeds and grains, from 42,212,000 to 40,124,000. The following domestic exports show a decided falling off: Grain and flour, from 125,090,000 francs during the first half of 1875 to 67,724,000 during the same period of 1876; farinaceous foods, from 19,960,000 to 18,983,000; table-fruits, from 11,989,000 to 9,281,000; wines, from 133,350,000 to 116,537,000; unrefined sugar, from 24,978,000 to 21,158,000; wool, from 40,172,000 to 33,850,000; eggs and poultry, from 27,309,000 to 24,141,000.

ADULTERATION OF FRENCH WINES.—M. Grandeau, director of the eastern agronomic station of France, has published the results of some official analyses of matters used in the adulteration of French wines. Formerly water, alcohol, and vegetable coloring-matters, such as log-wood, hollyhock, &c., were used. Then extracts of coal-oil were highly successful in imparting high color to wines, but were very injurious to the consumer. Lately, chemical analysis has detected a still more subtle and dangerous material in aniline red, or *fuchsin*, which M. Grandeau found extensively used in coloring Burgundy wines. This substance is obtained by a variety of processes, among the most prominent of which is the reaction of arsenic acid upon aniline in close vessels at a temperature of 190° Fahrenheit. Even when the fuchsin is obtained pure it has a very injurious effect upon the animal economy. But in the process of evolution it absorbs small quantities of arsenic acid commonly called arsenic. It is prepared for use by mixture in sirups or caramels, and is associated with other coloring-matters more or less poisonous. A centimeter (less than one-sixth of a cubic inch) of such preparations will give to a liter (1.05 quarts) of water an intense color. Some wine-makers

in the south of France expend from 10,000 to 12,000 francs in these sirups, at an average of about 2 francs per kilogram. The extent to which these southern houses practice this adulteration was shown by the numerous analyses at Nancy, conducted by Professor Ritter, of the faculty of medicine. It is very likely that the same facts would be revealed by an investigation at other centers of population in France. The proportion of fuchsin, amounting in many of these wines to 0.025 gram per liter, was sufficient to produce organic disturbance in a very few days.

The experiments of Messrs. Ritter and Feltz demonstrate the poisonous character of fuchsin, even when unmixd with arsenic, which of course gravely complicates the difficulty. A stout, healthy, robust man of fifty years swallowed 200 centimeters, or less than one-seventh of a gallon, of wine, containing one-half a gram, or nearly 8 grains, of fuchsin. A quarter of an hour afterward his ears were deeply colored with red; his mouth became pruriginous, (affected with a painful itching sensation;) his alveolar process swelled slightly, with a constant tendency to spit. Two days after the same dose was administered immediately after eating. The coloration of the mucous membranes and of the integuments was less pronounced, but still very perceptible. The patient continued to drink every morning for twelve days a liter of this wine. The coloration of the ears was not so permanent, but the itching of the mouth became more severe. About the eighth day a very uncomfortable scalding sensation was felt at the sides of the ears. On the eleventh day diarrhea supervened, the stools being colored with fuchsin. On the twelfth day very painful colic-cramps were followed by numerous evacuations. The urine was rose-colored during the whole experiment, and after the twelfth day contained albumen. On the cessation of the dose the patient recovered health in two days.

Two series of experiments on dogs brought to light the disorganizing action of fuchsin upon the kidneys. A dose of 0.6 gram (9.25 grains) was daily given to a dog for fifteen days, and the same dose to another dog for eight days. The animals grew thinner and lost weight daily; their urine, colored red, contained albumen, and afterward granulo-fatty cylinders, clearly indicating an alteration in the kidneys. Finally diarrhea came on, when the coloration of the urine diminished, as also the albuminous matter. Both the animals showed itching at the mouth by rubbing their muzzles against the ground; they slavered freely.

The experiment was varied by injecting the fuchsin directly into the circulation. One dog was treated with 0.35 gram, (5.4 grains;) another with 1.71 grams, (16.39 grains,) in three doses; a third with 0.45 gram, (6.84 grains,) in three doses, but all on the same day; a fourth with 1.80 grams, (16.77 grains,) in two doses; a fifth with 0.48 gram, (7.4 grains,) in four days. The mucous membranes and integuments were strongly discolored in all cases; they lost appetite, but drank freely, though without febrile symptoms. The second dog died in ten days after the injection; the fifth in twelve days; the third in twenty-one days; the other two survived the experiment. A post-mortem examination showed all the organs, except the nervous system, colored by fuchsin, which was eliminated through the bile. The surviving animals manifested a degeneracy of the cortical substance of the kidneys, sometimes visible to the naked eye, and easily discernible at any time with the microscope. The proportion of albumen in the urine rose as the symptoms became more decided, ranging from 7 to 33 grams per 1,000; this continued long after the injection.

The evident conclusion from the above facts is that wine colored with fuchsin, even when the coloring-matter is perfectly pure, produces that dangerous disease of the kidneys called albuminuria. M. Grandeaun calls for a stringent execution of the law against parties thus tampering with the lives and health of the wine-consuming public. He suggests that honest merchants shall refuse to purchase the adulterated wines; and that they shall expose all manufacturers convicted, by analysis of their wares, of this destructive fraud. The station over which he presides will receive no specimen for analysis except upon condition of exposing the malefactors.

INSUFFICIENT CEREAL PRODUCTION IN GERMANY.—The growing insufficiency of grain-crops to meet home consumption in Germany gives rise to much anxiety in Berlin. According to the Berlin Mercantile Report, the excess of grain imports over exports during the past year were as follows: Wheat, 1,500,000 centners; rye, 11,000,000 centners; barley, 2,133,000 centners; oats and corn, from 2,000,000 to 3,000,000 centners; total, 16,000,000 centners, or about 17,636,800 pounds, valued at \$27,370,000.

This insufficiency, by some, is attributed to economic mismanagement. It is feared that Germany, like other agricultural countries, will soon find her production below her home consumption, a natural consequence of the growing preponderance of other industries. The Berlin National Gazette says:

Of course, the advantages derived herefrom ought to balance the deficiencies mentioned; otherwise the country would, by continually paying in cash the excess of imports of articles of food as well as of manufacture, gradually become impoverished. Many predict this fate for Germany. It is but too true that since the Franco-Prussian war the trade-balance has been anything but satisfactory, and an improvement cannot be looked for in the exports of raw products, notably grain, so much as in that of manufactures. Therefore the turning of our neighbors' attention more particularly to agriculture is a decided advantage to our manufacturing interests.

It is claimed that the increase of acreage is not in proportion to population, and that even a more extensive culture will not meet the increased consumption. Cultivable land in Germany is already quite fully utilized, and agricultural production consequently limited in its increase. The area gained by clearing and reclaiming land does not exceed what is appropriated to manufacturing. Within the last few years railways have taken up several hundred thousand acres.

The raising of grain is becoming less profitable from year to year, and farmers are turning their attention to sugar-beets, tobacco, oleaginous plants, fruits, vegetables, &c. Increase in stock-raising necessitates a more extensive culture of forage-plants. It is said that the area of profitable cultivation has actually decreased, while the cost of labor has advanced.

In a recent work published in Germany on "Feeding and Food for Farm Animals," by Dr. Schmoller, it is asserted that while the production of meat and milk has by no means been commensurate with the increase of population, the wool product has greatly exceeded actual demand. To illustrate this, Schmoller cites for Prussia—

Year.	Number of sheep.	Pounds of wool per sheep.	Total production.	Pounds of wool per capita.
1804.....	10,394,425	1.83	19,096,295	2.07
1816.....	8,260,396	1.83	15,175,723	1.45
1840.....	16,344,018	2.42	39,635,224	2.65
1867.....	18,806,430	2.75	51,830,146	2.62

A further consideration is the improvement in the quality of the wool. In 1804 it sold at 16 to 26 cents per pound; in 1867, 32 to 65 cents.

With these results may be contrasted the following: In Prussia there were for every 100 of population in—

Year.	Horses.	Cattle.	Sheep.	Swine.	Goats.
1802	18.0	58.0	122.0	29.0	Not given.
1816	11.9	38.6	79.9	14.7	1.3
1840	10.8	33.1	108.9	14.9	2.4
1867	9.5	30.2	95.5	19.2	5.3

In Saxony, for every 100 of population, there were, in 1768, 197.7 heads of farm animals; in 1834, 83.4; and in 1858, 61.0. Count Lippe has estimated that for this country the present annual increase of meat-consumption is 3,300,000 pounds, which, even if the rate of increase of population be no greater, will in ten years amount to 330,000 cwt.

Prussia had, in 1867, for the same number of inhabitants, only half as many heads of farm animals as in 1802, and an aggravating circumstance is the fact that the quality of the meat does not make up for the proportionate decrease of quantity.

Schmoller gives the consumption of meat *per capita* for 1802, 36.8 pounds; 1816, 24.8; 1840, 38.1; and for 1870, 33.5, while from 165 to 220 per annum are required.

A similar retrogression is observable in other countries. Bohemia, for example, had, in 1870, 1,585,799 head of cattle, which is 13.6 per cent. less than in 1857. The decrease was, bulls, 3.7; cows, 9.4; oxen, 18.2; and calves, 18.5.

With regard to the yield of milk in Prussia, Schmoller says that there is not so much produced *per capita* now as there was in 1802. For this year the daily production was .80 quart; 1816, .72; 1840, .60; and in 1867, .57.

Count Lippe estimates the deficiency of milk and dairy products in Saxony at 62,422,277 gallons, and the yearly increase of demand at 4,238,935 gallons.

THE COLORADO BEETLE IN EUROPE.—M. Adam Müller, secretary of the Bavarian Agricultural Association, in his monthly report for July, 1876, upon the authority of the Weser Gazette, states that a potato-beetle (*Doryphora decem-lineata*) had been found in a sack of corn on board a steamer that arrived at Bremen from New York. This announcement has created great excitement on Continental Europe. M. Grandeau, director of the eastern agronomic station of France, through the columns of the Journal Pratique d'Agriculture, calls upon the minister of agriculture to take immediate measures to arouse French farmers to a united effort for the destruction of this terrible enemy.

SWEDISH AGRICULTURE.—Hon. C. Lewinhaupt, Swedish and Norwegian minister, in a communication addressed to the Commissioner, gives the following statistics of Swedish agriculture. This industry occupies half the population, and is under the department of the interior, but the special administration of this trust by the government is confided to an agricultural committee, of which the president of the national agricultural society is chairman. The paid members of this committee are a secretary and twenty agricultural chemists and engineers. In Norway, the department of the interior exercises direct supervision of agriculture, without any intermediate board.

The population of Sweden in 1874 was 2,390,000, of which half were engaged in agriculture. About \$30,000 are annually appropriated to the committee of agriculture, and \$10,000 for forest administration.

AUSTRIAN LIVE-STOCK STATISTICS.—Partial returns from Austrian provinces of the Austro-Hungarian monarchy show the following aggregates of farm animals and their milk-product :

Provinces.	Milch-cows.	Product of milk.	Average product per cow.	Sheep.	Goats.	Milk from sheep and goats.
		<i>Gallons.</i>	<i>Gallons.</i>			<i>Gallons.</i>
Upper Austria	243, 443	53, 971, 413	221	125, 594	19, 502	16, 685
Steiermark	265, 581	79, 408, 719	299	203, 820	38, 507	1, 868, 750
Voradburg	33, 773	16, 941, 190	501	17, 776	15, 471	578, 116
Carinthia	87, 104	22, 978, 750	264	176, 832	36, 630	747, 500
Carniola	79, 071	31, 920, 791	403	85, 161	16, 555	618, 930
Trieste	2, 839	1, 258, 790	439	350	115	2, 242
Dalmatia	27, 116	4, 992, 552	184	903, 318	481, 114	12, 333, 750
Moravia	321, 277	71, 760, 000	223	323, 503	80, 383	4, 558, 750
Silesia	112, 398	26, 019, 578	231	73, 037	16, 012	691, 587
Total	1, 172, 602	309, 251, 783	263	1, 909, 391	704, 289	21, 716, 310

The aggregate of cow's, sheep's, and goat's milk in the above provinces was 330,934,033 gallons, of which 174,033,278 gallons are consumed without conversion, the city of Trieste purchasing 2,149,436 gallons of the neighboring provinces. The balance, 156,900,815 gallons, is made into butter and cheese, the product of the former being 40,517,792 pounds, and that of the latter 35,679,907 pounds, (not including Carni, ola.)

The total number of milch-cows in the Austro-Hungarian monarchy in 1872, was officially stated at 3,832,238. In 1875, the number is estimated at 4,000,000, averaging 280 gallons of milk each, and aggregating 1,120,000,000 gallons. In 1872, the whole monarchy had 76,379 steers, 1,224,079 oxen, 2,315,840 calves, 4, 255,659 sheep, 1,187,821 goats, and 25,642,301 swine.

ROUMANIAN AGRICULTURE.—Roumania, a nominal dependency of the Ottoman Empire, embraces the old Turkish provinces of Moldavia and Wallachia. It is inhabited by a population of original heterogenous elements, which have fused into a well-defined type. The ruling element dates its existence from the location of Gallo-Romanic military colonists sent by the Roman emperors to occupy a strong frontier against the incursions of the restless barbarians hanging on the north-east borders of the empire. Of this composite race, there are about 9,000,000 in Southeastern Europe, of whom 5,000,000 are united in the little vassal monarchy of Roumania, with a small admixture of other nationalities. The other Roumanians are scattered through the neighboring provinces of Turkey and Southern Russia.

The province of Roumania has an area of 30,000,000 acres—about the size of the State of Mississippi—bounded by the Danube on the south, by the Pruth on the east, and by the Carpathian Mountains on the north and west. Wallachia embraces about three-fifths and Moldavia two-fifths of the united monarchy. The prerogative of the Crown is limited by parliamentary institutions, after the manner of the limited monarchies of Western Europe. The whole political and social organization is a remarkable development of western ideas amid the crystallized old conservatism of the East. .

About four-fifths of the people are engaged in agriculture. The climatic conditions involve great extremes of temperature. The summers are intensely hot and the winters severely cold. The spring is short, the autumn is longer and more pleasant.

The country has been afflicted with destructive droughts for several years past, resulting, as it is believed, from the indiscriminate destruction of the forests. An exhaustive system of culture has also robbed the soil of its surface-elements of fertility, which have not been replaced by manuring. The chief food of the people is *mammaliga*, or corn-meal, and consequently corn constitutes the staple crop of the country. About twice as much land is devoted to its culture as to that of wheat. The failure of the corn-crop, then, involves suffering and starvation to the laboring classes.

A gradual improvement has of late years been noted in the methods of culture. Improved implements and machinery have been introduced, mostly from England. The simplest and least-complicated machines are in request, inasmuch as the Roumanians have developed but little mechanical genius, and find it difficult to make repairs upon a complicated instrument. Till lately grain was almost universally separated from the stalk by trampling the heads with horses, and this practice is still prevalent in the less progressive sections of the country, but the economic value of elaborate implements has shown itself by its superiority of results. As the supply of labor is scanty, this importation of machinery has added greatly to the efficiency of crop-raising in Roumania. Agriculture has also become diversified to some extent, and market-gardening is on the increase, occupying nearly 400,000 acres in 1875—the culture of nearly all kinds of fruits and vegetables grown in Europe. The fruit, through bad management, seldom ripens, and is plucked in its immature state, to be made into preserves and “*dulceas*,” a kind of sweetmeat of which Roumanians are very fond. Viticulture is still in its infancy, and the wines of the country are very unpalatable to those accustomed to the finer vintages of Central and Western Europe. A few brands, however, have acquired some reputation, such as the Colnar, in Moldavia, and the Dragashani, in Wallachia, names derived from the localities of manufacture.

About 5,000,000 acres, or one-sixth of the area of the country, is covered by fine forests, especially occupying the off shoots and side ranges of the Carpathians. Imperfect facilities of transportation give to these forests so low a value, that no general motive operates to secure their destruction, as in the case of countries nearer to the general markets of the world. They embrace fine timber of every sort—pine, fir, larch, oak, beech, ash, elm, lime, birch, maple, wild cherry, &c. The wood, well seasoned, has a special value in building, being hard and close-grained. These forests are being rapidly depleted on the hill-sides, but on the inaccessible mountain-summits they await a more serious attack. The attention of public men has been called to the effects of the depletion of forest areas, and new efforts are being made to save and enlarge the remnant.

MARKET-PRICES OF FARM-PRODUCTS

FOR AUGUST AND SEPTEMBER, 1876.

The following quotations represent, as nearly as practicable, the state of the market at the opening of each month.

Articles.	August.		September.	
NEW YORK.				
Flour, superfine State and western. per barrel..	\$3 60	to \$4 35	\$3 50	to \$4 25
extra State.....do.....	4 40	to 6 50	4 25	to 6 50
extra to choice western.....do.....	4 40	to 9 00	4 30	to 8 50
southern extra.....do.....	4 65	to 5 00	4 50	to 5 90
southern family.....do.....	5 05	to 8 50	6 10	to 8 50
Wheat, No. 1 spring.....per bushel..	1 12	to 1 25	1 05	to 1 20
No. 2 spring.....do.....	94	to 1 12½	98	to 1 10
winter, red, western.....do.....	70	to 1 25	90	to 1 27
winter, amber, western.....do.....	70	to 1 25	90	to 1 27
winter, white, western.....do.....	1 15	to 1 35	1 14	to 1 28
Corn.....do.....	54	to 59	50	to 57
Oats.....do.....	35	to 38	35	to 45
Rye.....do.....	50	to 78	70	to 85
Barley.....do.....	Neglected		Nominal	
Hay, baled, first quality, for retail... per ton..	14 00	to 18 00	14 00	to 18 00
baled, second quality, for shipping. do....	12 00	to 13 00	12 00	to —
Beef, mess.....per barrel..	9 00	to 11 00	8 00	to 10 00
extra mess.....do.....	10 00	to 12 00	10 00	to 11 00
Pork, mess.....do.....	19 40	to 19 60	16 50	to 16 75
extra mess.....do.....	Neglected		Neglected	
prime mess.....do.....	Neglected		Neglected	
Lard.....per pound..	11½	to 11½	9½	to 10½
Butter, western.....do.....	13	to 27	14	to 30
State dairy.....do.....	22	to 30	22	to 32
Cheese, State factory.....do.....	6½	to 9½	5	to 10½
western factory.....do.....	6½	to 8½	7	to 8½
Sugar, fair to prime refining.....do.....	8½	to 9½	9	to 9½
Cotton, ordinary to good ordinary.....do.....	8½ ³ / ₁₆	to 10½ ¹ / ₁₆	9½	to 10½ ³ / ₁₆
low middling to good middli'g. do.....	11½ ¹ / ₁₆	to 12½	11	to 12½ ⁷ / ₁₆
Tobacco, lugs.....do.....	6	to 8	6	to 9½
leaf.....do.....	8	to 15½	9½	to 13½
Wool, American XXX and picklock.....do.....	38	to 40	35	to 42
American X and XX.....do.....	30	to 36	30	to 40
American combing.....do.....	45	to 52	40	to 48
California, spring clip.....do.....	12½	to 24	12½	to 26
California, fall clip.....do.....	10	to 15	10	to 16
pulled.....do.....	25	to 33	20	to 35
BOSTON.				
Flour, western superfine, spring... per barrel..	3 00	to 3 50	3 00	to 3 50
common spring extra.....do.....	4 25	to 4 75	4 00	to 4 75
good to fancy n'hwest'n spring. do.....	4 75	to 8 50	4 75	to 8 25
good to fancy western winter.. do.....	5 75	to 8 00	5 50	to 7 75
southern family.....do.....	6 50	to 8 00	6 00	to 7 75
Wheat.....per bushel..	83	to 1 35	90	to 1 30
Corn.....do.....	54	to 65	57	to 61
Oats.....do.....	30	to 46	36	to 50
Rye.....do.....	90	to —	75	to 80
Barley.....do.....	to —		Nominal	
Hay, eastern and northern.....per ton..	14 00	to 20 00	12 00	to 21 00
western choice.....do.....	17 00	to 19 00	17 00	to 19 00

Market-prices of farm-products—Continued.

Articles.	August.			September.		
BOSTON—Continued.						
Beef, mess	\$10 50	to	—	\$10 50	to	—
extra mess	12 00	to	—	12 00	to	—
family	13 00	to	\$14 00	12 50	to	\$13 00
Pork, prime	19 00	to	19 50	17 00	to	17 50
mess	20 50	to	21 00	17 75	to	18 00
Lard	12	to	12½	11	to	11½
Butter, New York and Vermont	18	to	24	18	to	22
western	14	to	22	14	to	30
Cheese, New York and Vermont factory	6	to	10	6	to	10
western factory	4	to	9	5	to	9
Sugar, fair to good refining	8¾	to	9½	9½	to	9¾
Cotton, ordinary to good ordinary	8½	to	9½	9½	to	10½
low middling to good middling	10½	to	12½	11½	to	13½
Wool, Ohio and Pennsylvania	30	to	40	31	to	45
Michigan	28	to	34	30	to	36
other western	27	to	32	29	to	34
pulled	15	to	33	15	to	40
combing fleece	40	to	45	45	to	50
California	14	to	27	14	to	30
PHILADELPHIA.						
Flour, superfine	3 25	to	3 50	3 25	to	3 50
Pennsylvania extra to choice	3 75	to	6 25	3 75	to	6 25
western extra to choice	5 00	to	6 50	5 50	to	6 50
Wheat, white	1 25	to	1 35	1 20	to	1 30
amber	1 18	to	1 22½	1 20	to	1 25
red	70	to	1 17	80	to	1 18
Rye	60	to	65	60	to	—
Barley	55	to	1 05	—	to	—
Corn	54	to	60	51	to	57
Oats	30	to	47	29	to	40
Hay, baled, prime	17 00	to	18 00	16 00	to	17 00
common to fair shipping	14 00	to	16 00	12 00	to	15 00
Beef, western mess	6 00	to	8 00	6 00	to	8 00
extra mess	10 50	to	11 00	10 00	to	11 00
Warthman's & Alburger's city family	13 00	to	13 25	12 50	to	13 00
Pork, mess	21 00	to	21 50	19 00	to	—
prime mess	17 00	to	17 50	17 50	to	18 00
prime (extra)	17 00	to	—	17 00	to	—
Lard	10½	to	12	10½	to	14
Butter, choice Middle States	28	to	38	26	to	35
choice western	24	to	26	22	to	24
Cheese, New York factory	5	to	10½	5½	to	10½
Ohio factory	4	to	9	4	to	9
Sugar, fair to good refining	8¾	to	9	9½	to	9¾
Cotton, ordinary to good ordinary	8½	to	9½	8½	to	9½
low middling to good middling	11½	to	12½	11½	to	12½
Wool, Ohio and Pennsylvania X to XXX	34	to	37½	36	to	42
other western	30	to	35	30	to	35
pulled	22	to	36	22	to	36
combing	33	to	45	35	to	50
tub-washed	30	to	40	30	to	42
BALTIMORE.						
Flour, superfine	2 75	to	3 75	2 50	to	3 75
extra	4 00	to	5 50	4 00	to	6 75
family	5 00	to	8 00	5 50	to	7 75
Wheat, red	92	to	1 18	85	to	1 19
amber	1 20	to	1 25	1 22	to	1 25
white	1 05	to	1 22	1 10	to	1 25

Market-prices of farm-products—Continued.

Articles.	August.	September.
BALTIMORE—Continued.		
Rye.....per bushel..	\$0 58 to \$0 63	\$0 54 to \$0 56
Oats.....do.....	30 to 41	31 to 37
Corn.....do.....	44 to 59	50 to 56
Hay, Maryland and Pennsylvania.....per ton..	15 00 to 19 00	12 00 to 16 00
western.....do.....	14 00 to 17 00	to
Pork, mess.....per barrel..	20 50 to 21 00	13 00 to
prime.....do.....	20 50 to	to
extra prime.....do.....	18 50 to	13 00 to
Lard.....per pound..	12 $\frac{1}{4}$ to 12 $\frac{3}{4}$	11 $\frac{1}{4}$ to 12 $\frac{1}{4}$
Butter, western.....do.....	13 to 21	15 to 23
eastern.....do.....	12 to 16	16 to 20
Cheese, western factory.....do.....	8 to 10	4 to 9 $\frac{1}{2}$
eastern factory.....do.....	10 $\frac{1}{2}$ to 11	5 to 10
Sugar, fair to good refining.....do.....	8 $\frac{1}{2}$ to 9	9 $\frac{1}{8}$ to 9 $\frac{3}{8}$
New Orleans grocery grades.....do.....	to	to
Tobacco, lugs.....do.....	6 $\frac{1}{2}$ to 11	6 $\frac{1}{2}$ to 9
leaf, common to medium.....do.....	9 to 11	9 to 11
Cotton, ordinary to good ordinary.....do.....	to 9 $\frac{3}{4}$	to 10 $\frac{1}{4}$
low middling to good middling.....do.....	10 $\frac{1}{2}$ to 12	11 to 12 $\frac{1}{2}$
Wool, tub-washed.....do.....	31 to 33	34 to 37
fleece washed.....do.....	28 to 33	28 to 33
pulled.....do.....	23 to 35	23 to 35
unwashed.....do.....	21 to 23	22 to 25
CINCINNATI.		
Flour, superfine.....per barrel..	2 75 to 3 50	2 75 to 3 50
extra.....do.....	3 90 to 4 25	3 90 to 4 25
family and fancy.....do.....	4 75 to 7 50	4 75 to 6 75
Wheat, winter, red.....per bushel..	85 to 1 05	1 00 to 1 05
hill, (amber).....do.....	to 1 10	1 05 to 1 10
white.....do.....	to 1 10	1 05 to 1 10
Oats.....do.....	20 to 38	20 to 33
Corn.....do.....	40 to 46	40 to 45
Rye.....do.....	45 to 58	45 to 58
Barley.....do.....	40 to 75	60 to 75
Hay, baled, No. 1.....per ton..	15 00 to 16 00	15 00 to 16 00
lower grades.....do.....	8 00 to 12 00	8 00 to 12 00
Pork, mess.....per barrel..	18 75 to 19 25	18 75 to 19 25
Lard.....per pound..	10 $\frac{3}{4}$ to 13	10 $\frac{5}{8}$ to 13
Butter, choice.....do.....	25 to 28	25 to 28
prime.....do.....	17 to 20	17 to 20
Cheese, prime to choice factory.....do.....	7 $\frac{1}{2}$ to 8 $\frac{1}{2}$	7 $\frac{1}{2}$ to 8 $\frac{1}{2}$
Sugar, New Orleans, fair to good.....do.....	9 $\frac{3}{4}$ to 10 $\frac{3}{4}$	9 $\frac{3}{8}$ to 10 $\frac{3}{8}$
prime.....do.....	10 $\frac{1}{4}$ to 10 $\frac{1}{2}$	10 $\frac{1}{4}$ to 10 $\frac{1}{2}$
Tobacco, lugs.....do.....	to	to
leaf.....do.....	to	to
Cotton, ordinary to good ordinary.....do.....	7 $\frac{3}{4}$ to 9	7 $\frac{3}{4}$ to 9
low middling to good middling.....do.....	10 to 11 $\frac{1}{4}$	10 to 11 $\frac{3}{4}$
Wool, fleece-washed.....do.....	25 to 33	25 to 33
tub-washed.....do.....	25 to 34	25 to 34
unwashed, clothing.....do.....	20 to 22	20 to 22
combing.....do.....	25 to 30	25 to 30
pulled.....do.....	23 to 25	23 to 25
CHICAGO.		
Flour, choice winter extras.....per barrel..	6 25 to 7 25	6 25 to 7 25
common to good winter extras.....do.....	5 50 to 6 00	5 50 to 6 00
spring extras, common to good.....do.....	4 75 to 5 00	4 75 to 5 00
spring extras, choice.....do.....	5 00 to 5 50	5 00 to 5 50
patent spring.....do.....	5 75 to 7 50	5 75 to 7 50
superfines.....do.....	2 50 to 3 00	2 50 to 3 00

Market-prices of farm-products—Continued.

Articles.	August.		September.	
CHICAGO—Continued.				
Wheat, No. 1 spring	per bushel..	_____ to _____	\$1 00	to _____
No. 2 spring	do.....	\$0 88 to \$0 89	91½	to \$0 98
No. 3 spring	do.....	79 to _____	82	to 85
Rye, No. 2	per bushel..	55½ to _____	55½	to 56
Barley, No. 2	do.....	50 to _____	73	to 78
Corn, No. 2	do.....	45 to 45½	43¼	to 43¾
Oats, No. 2	do.....	30½ to _____	32	to _____
Hay, timothy	per ton..	10 00 to 12 50	11 50	to 12 00
prairie	do.....	7 00 to 10 50	_____	to _____
Beef, mess	per barrel..	10 75 to 11 00	10 75	to 11 00
extra mess	do.....	11 75 to 12 00	11 75	to 12 00
Pork, mess	do.....	18 42½ to 18 60	16 40	to 16 42
prime mess	do.....	19 00 to 19 25	18 00	to 18 25
extra prime	do.....	14 25 to 14 50	13 50	to 13 75
Lard	per pound..	10 ⁹ / ₁₀ to 11	9½	to 10½
Butter, choice to fancy	do.....	21 to 25	28	to 26
medium to good	do.....	15 to 18	17	to 20
Cheese, good to choice factory	do.....	7¾ to 9	7¾	to 8¾
Sugar, New Orleans	do.....	_____ to _____	_____	to _____
Wool, tub-washed	do.....	30 to 37	30	to 35
fleece-washed	do.....	25 to 28	28	to 29
unwashed	do.....	15 to 21	15	to 22
pulled	do.....	_____ to _____	_____	to _____
SAINT LOUIS.				
Flour, winter, common to choice...per barrel..	2 50	to 6 50	2 50	to 6 50
spring	_____	to _____	_____	to _____
Wheat, white winter	1 32	to 1 36	1 20	to 1 30
red winter	63	to 1 30	90	to 1 16
spring	_____	to _____	_____	to _____
Oats	24	to 30	25	to 33
Corn	35	to 43	40	to 43
Rye	41	to 52	42	to 52
Barley, fair to choice	_____	to _____	60	to 85
Hay, timothy	13 00	to 17 00	11 00	to 12 00
prairie	7 00	to 9 50	6 00	to 9 00
Beef, mess	14 00	to 14 50	14 00	to 14 50
Pork, mess	19 00	to 20 50	17 25	to 18 00
Lard	9½	to 11	9½	to 11
Butter, prime to choice dairy	18	to 20	18	to 20
country packed	13	to 16	13	to 16
Cheese, Ohio factory	12½	to 13½	12½	to 13½
New York factory	13	to 14	13	to 14
Cotton, ordinary to good ordinary	7¾	to 8 ⁵ / ₈	7¾	to 8¾
low middling to good middling, do.....	10	to 11 ³ / ₈	10	to 11 ³ / ₈
Wool, tub-washed	35	to 36	35	to 36
fleece-washed	34	to 35	34	to 35
unwashed	20	to 24½	20	to 24½
Tobacco, lugs	4½	to 5½	3	to 5½
common to shipping leaf	7½	to 10½	6	to 10½
NEW ORLEANS.				
Flour, superfine	4 25	to _____	3 50	to _____
extra	4 50	to 5 75	3 75	to 5 00
choice to fancy	6 00	to 7 50	5 25	to 7 12½
Corn, white and yellow	60	to 62	50	to 54
Oats	_____	to _____	33	to 40
Hay, choice	22 00	to 23 00	_____	to _____
prime	16 00	to 17 00	16 00	to 17 00

Market-prices of farm-products—Continued.

Articles.	August.	September.
NEW ORLEANS—Continued.		
Beef, Texas.....per barrel..	\$10 00 to \$11 00	\$10 00 to \$11 00
western.....do.....	13 00 to 14 50	13 00 to 14 50
Fulton market.....per half barrel..	11 75 to 12 00	11 00 to 12 00
Pork, mess.....per barrel..	20 75 to 21 00	17 25 to 18 00
Lard.....per pound..	12 to 13½	11 to 12½
Butter, choice Goshen.....do.....	30 to —	30 to 32
choice western.....do.....	17 to 18	22 to 23
Cheese, choice western factory.....per pound..	— to 09	0½ to —
New York cream.....do.....	14½ to 15	15½ to 15
Sugar, fair to fully fair.....do.....	8¾ to 9½	10¼ to 10¾
prime to strictly prime.....do.....	9½ to 9¾	10¾ to 11
clarified, white and yellow.....do.....	10½ to 11½	11 to 11¾
Cotton, ordinary to good ordinary.....do.....	7½ to 9½	8½ to 9½
low middling to good middling.....do.....	10½ to 12½	10¾ to 11½
Tobacco, lugs.....do.....	5½ to 8	5½ to 8
low leaf to medium leaf.....do.....	8 to 12	8½ to 12
SAN FRANCISCO.		
Flour, superfine.....per barrel..	4 00 to 4 25	4 00 to 4 25
extra.....do.....	4 50 to 5 00	4 50 to 4 75
family and fancy.....do.....	5 00 to 5 50	5 00 to 5 50
Wheat, California.....per cental..	1 50 to 1 65	1 50 to 1 55
Oregon.....do.....	1 50 to 1 65	1 50 to 1 55
Barley.....do.....	95 to 1 25	90 to 1 10
Oats.....do.....	1 30 to 1 75	1 40 to 1 87½
Corn.....do.....	1 15 to 1 25	1 15 to 1 25
Hay, State.....per ton..	8 00 to 13 00	7 50 to 13 00
Pork, mess.....per barrel..	22 00 to 24 00	23 00 to 24 00
prime mess.....do.....	17 50 to 18 50	17 50 to 18 50
Beef, mess.....do.....	8 50 to 10 00	9 00 to 10 00
family mess.....per half-barrel..	8 50 to 10 00	8 50 to 10 00
Lard.....per pound..	13 to 15	13½ to 15
Butter, overland.....do.....	16 to 18	16 to 18
California.....do.....	25 to 28	25 to 28
Oregon.....do.....	20 to 22½	20 to 20
Cheese.....do.....	12½ to 15	12½ to 15
Wool, native.....do.....	8 to 10	10 to 12
California.....do.....	15 to 19	15 to 22
Oregon.....do.....	15 to 20	15 to 22

LIVE-STOCK MARKETS.

NEW YORK.			
Cattle, extra beeves.....per cental..	\$10 50 to \$10 75	\$10 00 to \$10 50	
good to prime.....do.....	9 50 to 10 25	9 50 to 9 75	
common to fair.....do.....	7 25 to 9 25	8 00 to 9 25	
Texas and Cherokees.....do.....	— to —	2 75 to 7 50	
bulk of the sales.....do.....	9 00 to 9 50	9 00 to 9 75	
average.....do.....	9 25 to —	— to —	
milch-cows.....per head..	45 00 to 75 00	— to —	
veal calves.....per cental..	5 50 to 8 50	5 00 to 8 25	
Sheep.....do.....	4 00 to 6 00	4 00 to 6 50	
Swine.....do.....	7 00 to 7 25	6 75 to 7 00	

Live-stock markets—Continued.

Articles.	August.	September.
PHILADELPHIA.		
Cattle, choice beeves per cental..	\$5 87½ to \$6 50	\$5 87½ to \$6 00
fair to good.....do.....	5 25 to 5 75	5 25 to 5 75
common.....do.....	4 50 to 5 12½	3 00 to 5 00
Sheep.....do.....	2 00 to 5 50	1 00 to 5 75
Swine, corn-fed.....do.....	9 50 to 10 00	9 00 to 9 25
BALTIMORE.		
Cattle, best beeves.....per cental..	5 12 to 5 87	4 87 to 5 50
first quality.....do.....	4 12 to 5 00	4 12 to 4 62
medium or good quality.....do.....	3 87 to 4 87	3 25 to 4 00
ordinary.....do.....	3 50 to 3 87	2 50 to 3 00
general average of the market.pr. cental	5 00 to ———	4 00 to ———
most of the sales.....do.....	4 50 to 5 50	3 62 to 4 50
Sheep.....per cental..	2 00 to 5 12½	2 50 to 5 00
Swine.....do.....	9 00 to 9 75	8 50 to 9 25
CINCINNATI.		
Cattle, good to choice native		
steers.....per cental..	4 00 to 4 75	4 00 to 4 75
fair to medium.....do.....	3 00 to 3 75	3 00 to 3 75
common.....do.....	2 00 to 2 75	2 00 to 2 75
milch-cows.....per head..	——— to ———	——— to ———
veal calves.....per cental..	——— to ———	——— to ———
Sheep.....do.....	2 25 to 4 25	2 25 to 4 25
Swine.....do.....	5 00 to 6 50	5 50 to 6 40
CHICAGO.		
Cattle, choice beeves, 1,300 to 1,550		
pounds.....per cental..	4 80 to 5 00	4 85 to 5 10
good beeves, 1200 to 1350 p'ds..do.....	4 60 to 4 70	4 50 to 4 75
medium grades, 1050 to 1200.....do.....	4 25 to 4 40	4 00 to 4 40
inferior natives.....do.....	2 00 to 3 60	2 00 to 3 50
Texas.....do.....	2 40 to 3 60	2 50 to 3 50
Sheep.....do.....	2 50 to 4 75	3 00 to 4 50
Swine.....do.....	6 20 to 6 80	6 20 to 6 40
SAINT LOUIS.		
Cattle, good to choice native steers.per cental..	4 50 to 4 90	——— to ———
common to fair natives.....do.....	3 25 to 4 25	4 50 to 4 90
inferior to common natives.....do.....	2 00 to 3 25	2 00 to 3 25
Texas, fair to choice.....do.....	3 00 to 4 00	3 00 to 4 00
Sheep.....do.....	2 50 to 4 50	2 50 to 4 50
Swine.....do.....	6 10 to 6 50	6 10 to 6 35
Horses, plugs.....per head..	30 00 to 65 00	30 00 to 65 00
plain.....do.....	50 00 to 90 00	50 00 to 90 00
street-car.....do.....	75 00 to 125 00	75 00 to 125 00
good to extra draught.....do.....	100 00 to 130 00	100 00 to 130 00
good drivers.....do.....	175 00 to 225 00	175 00 to 225 00
extra.....do.....	225 00 to 250 00	225 00 to 250 00
auction horses and ponies.....do.....	25 00 to 45 00	25 00 to 45 00
Mules, 14 to 15 hands high.....do.....	85 00 to 120 00	85 00 to 120 00
15 to 16 hands high.....do.....	115 00 to 150 00	115 00 to 150 00
extra.....do.....	175 00 to 185 00	175 00 to 185 00
NEW ORLEANS.		
Cattle, Texas beeves, choice.....per head..	40 00 to ———	40 00 to ———
first quality.....do.....	35 00 to ———	35 00 to ———
second quality.....do.....	30 00 to ———	30 00 to ———
western beeves.....per cental..	4 50 to 5 50	——— to ———
milch-cows.....per head..	40 00 to 90 00	40 00 to 90 00
veal calves.....do.....	7 00 to 9 00	7 00 to 9 00

Live-stock markets—Continued.

Articles.	August.	September.
NEW ORLEANS—Continued.		
Sheep	\$2 00 to \$6 00	—— to ——
Swine	6 00 to 8 50	—— to ——
Horses,* good condition	—— to ——	\$150 00 to \$200 00
good plugs.....	—— to ——	100 00 to 150 00
common	—— to ——	40 00 to 80 00
Mules, first-class, broken	—— to ——	190 00 to 225 00
good, suitable for sugar-work- ing, broken	—— to ——	175 00 to 200 00
good, suitable for city use, broken	—— to ——	175 00 to 225 00
small, suited to rice and cotton planters, broken	—— to ——	100 00 to 150 00
green mules generally sell about \$10 less per head than broken ones.		

* Horse-market closed during the summer months.

FOREIGN MARKETS.

WHEAT.—The thrashing-machine has dissipated the hope cherished by British farmers and traders that the fine growing weather of the later season had remedied the injuries of the winter and spring upon their wheat-crops. Dissatisfaction with the actual yield is most strongly and generally expressed in the eastern counties. The latest general estimates claim not over 24 or 27 bushels per acre as the average yield. The grain, however, is fine, plump, and very heavy, averaging in many localities from 65 to 67 pounds per bushel. This development of the situation resulted in an advance of 1 or 2 shillings per quarter in nearly all the English country markets, yet the new harvest has been but sparingly marketed. The views of the farmers as to the coming demand are in advance of those of the buyers, who are disposed to regard some of the representations of disaster to the crops as extravagant. The metropolitan markets have not yet responded to this local advance, but hold more firmly to previous rates. The English wheat-trade is more under cosmopolitan influences than formerly. The large supplies reported in America and Russia render a general and decided advance a matter of serious risk. The varying requirements of continental Europe constitute an element of uncertainty, but statistical inquiry is bringing it within more manageable limits. Among the new enterprises undertaken to facilitate this inquiry is the International Seed and Corn Market of Vienna, which was opened August 21. Herr Devez, head of one of the bureaus of the ministry of commerce, appeared in behalf of the minister, and in an interesting speech cordially gave the indorsement of the imperial government to the movement. A statistical report, read by Herr Leinkoff, estimates the wheat-crop of Hungary at 800,000 hectoliters (2,270,000 bushels) below average, while the Austrian crop was expected to show a surplus of 500,000 hectoliters. (1,418,910 bushels,) leaving a net deficiency for the Austro-Hungarian monarchy of 300,000 hectoliters, (851,346 bushels.) Of the other bread-stuffs the Austro-Hungarian territory will show a decline of 1,900,000 hectoliters (5,391,758 bushels) compared with an average yield in rye, a surplus of 2,300,000 hectoliters (6,527,006 bushels) of barley, and a

surplus of 5,000,000 hectoliters (14,189,100 bushels) of oats. The grain exports from the crops just gathered are expected to aggregate about 4,000,000 hectoliters (11,351,280 bushels) of wheat; 5,000,000 hectoliters (14,189,100 bushels) of barley, and 7,000,000 to 8,000,000 hectoliters (19,864,740 to 22,702,560 bushels) of oats. The short crops of rye will leave but a small quantity available for export.

Herr Wyngart read a report on foreign wheat-crops, estimating a moderate deficiency in England, France, and Germany, (excepting Bavaria and Saxony;) a full average in Roumania, Switzerland, Sweden, Norway, Denmark, and Northern Italy; a crop above average in Bavaria, Saxony, Austria, and Russia. The estimate of the English harvest, however, was made prior to the late developments, which show the crop to have been shorter than English agricultural authorities were willing to believe. Rye was below average in all Europe, except Russia and France; barley was full average or above in all except Prussia, Southern Bavaria, England, and Sweden; oats full average or above in all except Prussia, England, Sweden, Norway, and Denmark.

Estimates were presented on this occasion before an assembly of 5,000 farmers and grain dealers, representative statisticians of different countries. Europe is naturally grouped into two classes of countries—producing and consuming, according as they present a surplus or deficiency in their productions to meet their home demand. Of the former, Russia, with a fine crop in her southern provinces, was enabled to report a full average in spite of a deficit of 70 per cent. in the small crop of her northern provinces. Austro-Hungary was rated between a full average and 2 per cent. below. Roumania was estimated at 25 per cent. below average, which does not agree with the official estimate of Herr Wyngart, given above. Of the consuming countries, England was estimated at 5 per cent. below average, whereas the deficiency will probably be not less than 10 per cent., according to later developments. In Germany, Bavaria and Saxony had a good average harvest, but Mecklenburg is 20 per cent. below, Prussia 18 per cent., Baden 10 per cent., and Würtemberg 5 per cent. The south, southeast, and southwest of France show a yield about 24 per cent. below average, but the other portions of the country show a full average. Switzerland is 10 per cent., Sweden, Norway, and Denmark 15 per cent., and the Netherlands 30 per cent. below average.

The sales of English wheat in the United Kingdom during the week ending August 26 amounted to 21,298 quarters, at 45*s.* 5*d.* per quarter, against 37,980 quarters, at 53*s.*, during the corresponding week of 1875. The London averages were 50*s.* 3*d.* on 1,112 quarters. The imports into the United Kingdom during the week ending August 19 amounted to 1,070,424 cwt. The Mark Lane market opened on Monday, August 21, with a tendency to firmness, caused by the broken and unsettled state of the weather, though quotations did not advance. English wheat was in small supply, while foreign wheats, mostly of old crops, were abundant. Essex and Kent white, old and new, brought from 45*s.* to 50*s.* per quarter; ditto red, 43*s.* to 48*s.*; Norfolk, Lincolnshire, and Yorkshire red, 42*s.* to 44*s.*; Dantzic mixed, 50*s.* to 54*s.*; Königsberg, 49*s.* to 52*s.*; Rostock, 50*s.* to 53*s.*; Pomeranian, Mecklenburg, and Uckermark red, 47*s.* to 50*s.*; Ghiska, 40*s.* to 43*s.*; Russian hard, 42*s.* to 43*s.*; Saxonska, 42*s.* to 44*s.*; Danish and Holstein red, 46*s.* to 49*s.*; American red, 42*s.* to 47*s.*; Chilian white, 46*s.*; Californian, 47*s.*; Australian, 48*s.* to 49*s.* In Liverpool British white wheat brought 9*s.* 6*d.* to 10*s.* 2*d.* per cental; ditto red, 9*s.* 2*d.* to 9*s.* 10*d.*; Canadian white, 9*s.* to 9*s.* 7*d.*; red club and golden drop, 8*s.* 10*d.* to 9*s.* 3*d.*; American

red winter, 9s. to 9s. 6d.; Minnesota No. 1, 8s. 10d. to 9s. 2d.; No. 1 spring, 8s. 9d. to 9s.; No. 2 spring, 7s. 10d. to 8s. 3d.; Bombay, 8s. 6d. to 9s.; Egyptian, average, 6s. to 8s.; California, 9s. 2d. to 9s. 5d.; club, 9s. 8d. to 9s. 10d.; Oregon, 9s. 7d. to 9s. 9d.; Chilian, 8s. 8d. to 9s.; Australian, 9s. 10d. to 10s.

At the close of the last week in August the French harvest had been completed, but the results had not been ascertained, except that the grain was supposed to average 6 or 7 per cent. greater in weight per bushel than in 1875. In the north, east, and south, with plentiful supplies, prices range from 49s. 2d. to 52s. 9d. per quarter; in the center, from 46s. 6d. to 47s. 10d. During the week 22 county markets had advanced or tended to advance, against 34 the week previous; 42 were reported from calm to firm, against 32 the previous week; 85 had declined or shown a declining tendency, against 83 the previous week. The total showing indicated a weakness on the whole, and a preponderance in favor of lower prices. At Paris, wheat on the spot showed a declining tendency. The week's arrivals at Marseilles amounted to 84,570 quarters, increasing the already inconvenient presence of extra supplies upon that market, and causing a decline of prices. At Antwerp the prospect of an average crop depressed prices. Amsterdam notes a dull trade, with a tendency in prices to weaken. In Berlin, with an active trade in wheat, both on the spot and *in transitu*, prices did not advance. At Berlin the receipts were of fine quality, but the yield of the dependent wheat-region was reported below average; the trade was quiet at previous quotations; Holstein and Rostock sold at 50s. 6d. to 52s. per 504 pounds. At Leipzig the trade was dull at old prices; low water had caused some stagnation in the milling business. The Odessa wheat-market was very animated, in spite of discouraging advices from abroad; the sales were considerable, and the stock on hand remarkably low, as supplies from the interior were slow in coming in: prices consequently firm. At Alexandria supplies had begun to come in more freely, without, however, disturbing the status of prices; the amount of business was quite limited.

FLOUR.—The imports of flour into the United Kingdom during the week ending August 19 amounted to 67,307 cwt., against 124,132 cwt. the previous week. The trade was without change, and the amount of business very limited. The best town households, in Mark Lane, brought 36s. to 43s. per sack of 280 pounds; best country households, old, 34s. to 36s.; Norfolk and Suffolk, old, 29s. to 31s.; French, 30s. to 35s.; American and extras, 21s. to 24s. per barrel of 196 pounds. At Liverpool English and Irish superfines were quoted at 36s. to 38s. per 280 pounds; ditto extras, 39s. to 41s.; French, 38s. 6d. to 46s. 6d.; Trieste, 47s. 6d. to 52s. 6d.; Chilian, 25s. to 28s.; Californian, 34s. to 37s.; American western and extra State, 22s. to 24s. 6d. per barrel; Baltimore and Philadelphia, 22s. to 25s. 6d.; Ohio and extra, 22s. to 25s.; Canadian, 22s. to 26s.; patent, 29s. to 33s. The prices of eight marks in the Paris market, August 26, averaged 37s. per 280 pounds; superior flour 36s. 2d.

MAIZE.—In Mark Lane, at the close of August, white maize was quoted at 26s. to 27s. per quarter; yellow ditto, 25s. to 26s. In Liverpool American white, per 480 pounds, 26s. 6d.; ditto mixed, 25s. to 25s. 3d.; Galatz, 26s. 9d. to 27s.; Danubian, 25s. 3d. to 25s. 6d.; Dari, 23s. to 24s.

